

Municipal Journal And Engineer

VOLUME XXV

NEW YORK, JULY 29, 1908.

No. 5



NEW CITY HALL, CHATTANOOGA

CHATTANOOGA AND KNOXVILLE, TENN.

Chert Road Construction—New City Hall at Chattanooga—
Knoxville's Market—Farmers' Street Stands—
Stall Rentals—Trash Cans

Of the thirty miles of improved streets in Chattanooga about fifteen are of chert. The chert roads are constructed by first placing on the sub-grade five inches of furnace slag, which is covered with a sufficiently thick layer of chert so that when rolled the entire mass will pack thoroughly. After rolling, an additional layer of chert is placed and rolled, of sufficient thickness to make the total depth of pavement eight inches. Recently contracts for such roads were let at from 50 cents to 75 cents per square yard. Either brick or stone gutters are used. Changes in the city charter made within a few months have greatly facilitated pavement construction, and a recent bond issue of \$250,000 will make possible the expenditure of \$500,000 for paving, the property owners paying the other \$250,000. Chattanooga was one of the first cities to have its own municipal asphalt repair plant.

A practice of the engineer's office, which might probably be found advantageous in other cities, is that of furnishing plumbers and drain layers a blue print showing the location of sewer branches, for which a charge is made sufficient to cover the cost of the print.

Until recently this city has had no park of its own, although several national parks have been conveniently accessible. Work has been started, however, on a city

park for which an appropriation of \$50,000 has been made. A new City Hall is now under construction, estimated to cost \$20,000, which was designed by R. H. Hunt, a local architect. The city possesses an auditorium seating 4,500 people, which was built by direct levy and which is free to all organizations.

The ladies of Chattanooga have organized a City Beautiful Club, which now has about 450 members. This club has already accomplished a great deal toward keeping the streets tidy, compelling the use of covered garbage receptacles, securing uniform sidewalks, painting of poles and the creation of beauty spots and playgrounds.

The water works is owned by a private company which furnishes excellent water at reasonable rates; the cost for a nine-room house, for instance, being 75 cents



MARKET BUILDING AND CITY HALL, KNOXVILLE

to 90 cents a month by meter measurement. There is some talk, however, of the city buying the plant, and in fact an issue of \$900,000 worth of bonds for that purpose has been authorized, but it is probable that this sum will not be accepted by the company for the plant.

KNOXVILLE

Knoxville possesses one of the best kept and most generally used markets in the entire South. The market building contains the market proper on the ground floor, with the fish and meat departments at opposite ends and the vegetable and fruit markets in the center. The two upper floors contain an auditorium and city offices. On all sides of the market and in the streets leading to it



FARMERS' MARKET, OUTSIDE MARKET BUILDING, KNOXVILLE, TENN.

are stands for farmers' wagons, at which are sometimes found as many as 500 wagons at a time. The use of these stands by the farmers has practically done away with street peddling. In the market itself the produce is well displayed and the cleanliness is notable. Screens at all openings keep out flies, and the butchers have recently put in a system of revolving fans carrying strips of paper which effectually prevent flies from lighting on the meat. Besides being thoroughly swept every day the entire in-

terior of the market is washed out with a fire hose once a month and then disinfected. In addition, the streets outside of the market are flushed daily with a fire hose.

The stall rental is \$1 per front foot, the average cost of the stall being \$20. In 1907 receipts from the market were \$8,662.90. No figures were available as to the cost of operating the market, but this probably does not exceed \$4,500. The receipts from the city weigher were \$2,149.05 and the disbursements \$1,278.23.

Formerly when a stall owner wished to go out of business he sold his lease to someone desiring it, as much as \$1,500 having been realized in this way. At present, however, this is not permitted, but when a man gives up his lease it is awarded to the applicant who is the highest on the waiting list which is kept by the city.

The city takes considerable pride in keeping clean not only its market but its streets also, and has been greatly assisted in this by the placing of trash cans along the streets by an advertising concern. It is forbidden to throw rubbish in the streets and this ordinance is thoroughly well observed.



KNOXVILLE TRASH CAN

CORROSION OF STEEL AND IRON MAINS

Experiences with Water Mains in Rochester, Atlantic City, Allegheny, Pittsburgh, Cambridge, New Bedford and Portland, Ore.—Probable Causes of Corrosion

THE use of steel for water mains of large size has recently been adopted by several eastern cities and has been in use for a number of years in the far western States. Of the eastern cities, Rochester was the first to use wrought iron or steel pipe for any considerable length of main, having laid about ten miles of 36-inch wrought iron pipe in 1873-5 and three miles of 24-inch wrought iron pipe. This pipe was made in sections 4½ feet long, of plates 3-16 to ¼-inch thick, and the pipe was coated by dipping into an equal mixture of Trinidad asphalt and coal tar pitch.

In 1890 the East Jersey Water Company constructed a line of 48-inch steel pipe 21 miles long and five miles of 36-inch steel pipe, for the supply of Newark, N. J.

Between 1893 and 1895, Rochester built a second conduit, of which 26 miles was 38-inch steel pipe and about one-quarter mile was 36-inch cast-iron pipe. The steel in this pipe was soft open hearth, and rivets of the same material were used for construction, the specifications calling for not more than 0.6 per cent. of manganese and 0.06 per cent. of phosphorus and a tensile strength of

between 55,000 and 65,000 pounds and an elastic limit of not less than 30,000 pounds. The plates were from $\frac{1}{4}$ to $\frac{3}{8}$ inch thick and the pipe was made in 7-foot sections, cylindrical, with inside and outside joints. About one-half of the line was supplied by the East Jersey Pipe Company, the plates being made by the Carnegie Steel Company, and the other half by the Rochester Bridge and Iron Works, these plates being supplied by the Paxton Rolling Mill at Harrisburg. All plates were inspected by Booth, Garret and Blair.

Seven and one-half miles of the pipe furnished by the East Jersey Pipe Company were coated with California asphalt, which was used by the same company on the Newark conduit, the coating being applied by heating a completed section of pipe to 300° F. and dipping it in a tank of the coating material, where it remained until the steel reached a temperature of about 350° , which was that of the mixture. Changes in the appearance of this coating within a few weeks after dipping led to the belief that it was undergoing some chemical change, possibly disintegration, and it was found not to be adhering tightly to the metal. The remaining $5\frac{1}{2}$ miles furnished by this company was coated with a mixture of equal parts of refined Trinidad asphalt and the best grade of coal tar pitch, the same coating which had been applied to the wrought-iron Rochester conduit laid in 1873. This also was found not to be as tough and adhesive to the steel as was desired.

Professor A. H. Sabin, of New York, had, at the request of the Rochester authorities, been experimenting with a coating for steel pipe and the Rochester Bridge and Iron Company applied to the pipe supplied by them the process recommended by Professor Sabin. In using this process 27 1-3-foot sections of pipe were heated to 300° F. and dipped vertically in hot coating mixture, and after removal and draining were placed in a large brick oven where they remained for ten hours at a temperature of about 500° F. The coating mixture was of the nature of a japan, probably composed of linseed oil and asphalt mixed with some copal resin and turpentine. The chief engineer of the conduit was satisfied that this coating was superior to either of the others.

This whole steel conduit parallels the wrought-iron conduit first laid, being in some places but 25 feet from it, although in others it is about one mile distant. The soils and other conditions were practically the same for both lines. This line was completed and put into service about 19 years after the first one. During the first six years of use of the steel pipe only a few insignificant leaks were found, due to imperfect calking. At that time, however, two small leaks, caused by corrosion, appeared in pipe coated with California asphalt and in the next year 13 such leaks occurred in this same section of pipe. This led to an investigation and the pipe in the neighborhood of the leaks was uncovered and several plates were found to be badly corroded and the coating generally to be in poor condition. Pits were found as large as $\frac{1}{8}$ inch deep and from $\frac{1}{8}$ to one inch in diameter. This corrosion seemed at first to be confined to about

2,000 feet of the asphalt-coated conduit. Later test pits were dug all along the line and the coating was found to be poor and many plates pitted throughout the entire section where asphalt and coal tar pitch had been used. Repairs to the pipes where serious pitting was found were made, as described in the MUNICIPAL JOURNAL AND ENGINEER for June 19, 1907. No corrosion appears to have been noticed in the northern half of the conduit or that covered by the Sabin coating until, in 1903, four rust leaks appeared in a section of pipe laid in swampy ground. By the end of 1906 fourteen leaks had been discovered in this northern half, all within a distance of two-thirds of a mile, mostly where laid in a cedar swamp. An investigation of the soil surrounding the pipe, of the ground water, the composition of the steel and that of the coating, and tests for electrolysis, did not discover in any of these a sufficient explanation of the corrosion. The steel was of excellent composition, no sign of stray electric currents was found and no acids were discovered in the soil, ground water or coating sufficient to produce corrosion. It was noticed that corroded pipe was confined to sections where the soil was quite wet, and it is believed that defective coating was responsible for the beginning of corrosion.

The wrought-iron pipe, during 19 years prior to 1894, had leaked through corrosion at but one point, according to Chief Engineer Kuichling. During the next ten years a few leaks, less than ten in number, were reported and none have been discovered since then. The less number of leaks in the north half of the steel conduit was probably due to the fact that the location is high and the soil porous, rather than because of the superiority of the Sabin coating, although there is believed to be such a superiority.

The steel main of the East Jersey Water Company above referred to has apparently given no trouble from corrosion, although having been in use for over ten years. The soil in which it is laid is generally of a porous nature.

A 30-inch steel water main laid in Atlantic City, N. J., and about five miles in length, was laid in salt marsh in 1901. This pipe was coated with mineral rubber and is rapidly deteriorating. A water main for Allegheny, Pa., of open hearth steel and coated by the Sabin method is not known to have corroded at all. This is laid through sandy loam and shale rock. A 42-inch main of open hearth steel was constructed by Pittsburg in 1902. Mineral rubber was used for a coating. This pipe also lay in sandy loam and shale. Corrosion has been discovered in only one plate, near the power house of the street railway, and this was believed to be due to electrolysis. A 40-inch pumping main of open hearth steel in Cambridge, Mass., has given much trouble, largely if not wholly caused by electrolysis, the most of this occurring where the soil was moist, sandy clay.

A 48-inch main in New Bedford, Mass., of soft steel with asphaltum coating which has been in use for ten years has given no trouble from corrosion. Most of it is laid in gravel, sand and boulders, although about two of the eight miles is in a peaty swamp, gravel being used

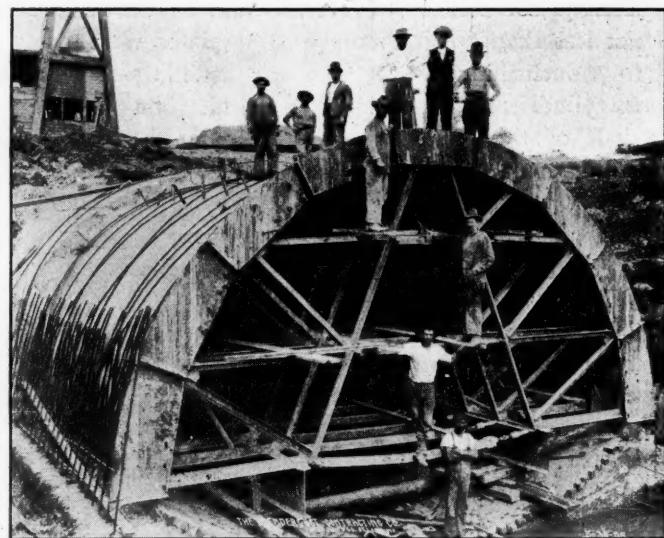
to cover the pipe in this swamp. A main of mild steel coated with mineral rubber was laid in Minneapolis in 1898. The soil is hard, yellow clay, damp in places but not wet. This pipe seems to be in good condition. In 1893 Portland, Ore., laid about 24 miles of pipe similar in diameter and material to the Rochester steel conduit and coated with asphalt. The soil is mostly clayey and is wet in places. About ten years after the pipe was laid a few leaks resulted from corrosion. About 590 feet of this pipe was uncovered on the upper half for inspection, and more than 1,000 pittings were found, many of them quite deep. Practically all of these were in quite moist ground. Where the soil was gravelly there were no pits nor were there any in the pipe which was laid in a sandy river bottom.

Experience generally seems to indicate that cast-iron is corroded less than wrought iron, and this less easily than mild steel. Reasons for this may be chemical or mechanical action or electrolysis. The properties of wrought iron are more nearly those of pure iron than are the properties of steel, and the purer the iron is the less the corrosion. Wrought iron generally has a rougher, more open surface than steel, which permits protecting coating to adhere more firmly to it. Cast-iron water mains over 100 years old and having been in constant service have recently been removed in Paris, and others are still in use in the vicinity of that city which have been laid for over 200 years. Even severe conditions of outside soil do not appear to injuriously affect cast-iron pipe. In view of the apparent pitting of steel pipe in wet soils, it is suggested that in such locations cast-iron be substituted for steel or else the trench be drained to render the soil in which the steel pipe is laid practically free from moisture.

A Large Concrete Sewer

WHAT is believed to be the largest concrete sewer yet built in this country is that constructed by the St. Louis Board of Public Improvements for carrying the water of Harlem creek. This sewer is 25 feet wide and 17 feet high, the invert being a flat arch and the upper part consisting of a semi-circular arch.

Harlem creek was an open stream into which was discharged a considerable part of the sewage of the city, and it had for some time been an almost intolerable nuisance. It was, therefore, determined to divert it into a conduit which would thereafter practically be a large combined sewer. Its great size is called for by the magnitude of the floods which are frequently caused by rains. The first section was completed some time ago and the second is now under construction. This section is about 3,000 feet long. The concrete at the crown is 14 inches thick and 26 inches at the springing line. The invert is 12 inches thick, the inside being protected by a layer of vitrified brick. The concrete for the invert is proportioned 1:3:6 and that for the arch 1:2:5, St. Louis Red Ring Portland cement being used. The excavation runs from 25 to 51 feet in depth and is kept considerably in advance of the concrete work. A $1\frac{1}{4}$ Little



SECOND SECTION HARLEM CREEK SEWER UNDER CONSTRUCTION

Giant steam shovel is used for soft material, dumping the material into tubs of 36 cubic feet capacity. These tubs are carried by a Lambert cable way of 500 foot span and deposited over the completed sewer. Over part of the length about eight feet of solid rock was found and this also, after blasting, was loaded into buckets, but the broken stone was not used for back filling, but was deposited in cars which carried it to a crusher which prepared it for the concrete. The concrete was mixed by a Chicago improved concrete mixer, in addition to which there was a Gates crusher, a sand elevator and sand bin, all located near the center of the contract. Electric motors are used for furnishing power to the mixing plant.

The concrete is discharged from the mixer into bottom dump buckets, carried by gravity on flat cars to the cable way, which transports it to the desired point. The concrete is reinforced by corrugated bars running both longitudinally and transversely through both the invert and the arch. The centering for the arch is the Blaw collapsible steel center, consisting of two sets of trusses to which steel plates are bolted. The ends of the trusses are connected through adjustable braces arranged to permit the collapsing of the center. The centers are used in 25-foot lengths and are provided with wheels by which they run upon tracks when moved ahead. When in position the center is jacked up four inches from the track. Four men have lowered the form, moved it forward and adjusted it to a new position in two hours. The outside of the steel form is smooth and leaves a concrete surface which needs practically no plastering or pointing up. Mr. H. R. Fardwell is the Sewer Commissioner and Mr. Sam'l W. Shinkle is the Engineer in charge.

Public Improvement Assessments

ON the opposite page are given data collected by the American Society of Municipal Improvements, showing the methods of computing and collecting special assessments for public improvements and the methods of paying the contractors for the same. No explanation of the table seems necessary, most of the statements being printed in the form received. In practically all cases the

SPECIAL TAXES OR ASSESSMENTS FOR PUBLIC IMPROVEMENTS

CITY	HOW COMPUTED	PAYMENTS MADE	DO THEY FORM LIEN ON PROPERTY	CONTRACTORS PAID IN
So. Portland, Me....	Area.....	Cash.....	No.....	Cash.
Haverhill, Mass....	Sewers, 20c. per front foot and 0.4c. per sq. ft. for 150 ft. back from street; this amounting to 35% of total cost. No special paving tax	Cash or three to ten annual installments.	Yes.	.....
Newton, Mass....	Sewers, 15c. per front foot and 0.55c. per sq. ft. for 180 feet back from street. Others on basis of adjudged benefits. None for paving.	Cash or ten payments.....	Yes.....	Cash.
Somerville, Mass....	Curb and sidewalk, $\frac{1}{2}$ paid by owner. All other assessments on frontage and area....	Cash; interest after two months.	Yes.....	Cash.
Pawtucket, R. I....	Paid from general tax; except sewers, 25c. per front foot plus 1c. per sq. ft. for 100 ft. back from street. Curbing, same as Woonsocket.	In cash, or three annual installments.	Yes.....	Cash.
Woonsocket, R. I....	Curbing, abutting owner pays for stone, city for setting. Sewers, 50c. per front foot plus 1c. per sq. ft. for 120 feet back from street.	.....	Yes.....	Cash.
Bridgeport, Conn....	By front foot. City pays $\frac{1}{4}$ of total cost, owner $\frac{3}{4}$.	Cash.....	Yes.....	Cash.
Troy, N. Y....	All improvements by front foot.....	In cash, or in three annual payments, with 6% interest.	Yes.....	Cash.
Hoboken, N. J....	Streets by front foot, sewers by area.....	Cash.....	Yes.....	Cash warrants or interest-bearing improvement certif.
Passaic, N. J....	Usually front foot, sometimes area.....	Cash within forty days of confirmation of estimate.	Yes.....	Cash or one year improvement certif's.
Bayonne, N. J....	Front foot when lots are of nearly uniform depth and at rt. angles to street; but at corner lots 50 ft. is deducted from side street frontage for paving, and for sewers corner lot is assessed for a depth of 100 ft. only on the street on which it faces. With irregular lots assessment is made by area, in all cases taking into consideration benefits received.	Cash on five annual payments, at option of owner..	Yes.....	Cash.
Reading, Pa....	Sewer work, by front foot. Paving paid from general fund.	For sewers, ten quarterly payments.	Yes.....	6% bonds.
Erie, Pa....	Paving, curbing and sewers by front foot; city pays for paving at street intersections and alleys.	Thirty day from date of notice. But in most paving work, in ten semi-annual installments.	Yes.....	Certified bills for curbing. Cash on sewers, or 6% int. after 30 days.
Charleston, S. C....	General taxation only.....	.....	.....	Cash.
Birmingham, Ala....	Paving by front foot, charging for intersections $\frac{1}{2}$ block in each direction. Sanitary sewers by front foot, revised to meet special cases. Storm sewers by area.	Cash or in ten years, optional with owner.	Yes.....	Cash.
Grand Rapids, Mich.	On basis of benefits. Street improvements largely by front footage; sewers by benefits, with allowance for previous sewer assessments. City pays for paving at street intersections; St. Ry' Co. for between tracks and 8" outside.	Cash, or five payments with interest at 5%.	Yes.....	Cash.
Oshkosh, Wis....	On basis of benefits.....	Cash; or five annual payments with interest at 5%.	Yes.....	City's portion in cash. Owner's in certificate or b'd.
La Crosse, Wis....	Front foot; rebates for corner lots for street improvements, for long side of lot for sewers	Cash, or ten annual payments with interest.	.....	Cash for paving. For sewers, cash for city's share, certificates for owners.
Akron, O....	Front foot.....	Several annual payments..	Yes.....	Cash.
Youngstown, O....	Front foot; except that district sewers are assessed by benefits by Council committee..	Cash, or several payments with interest at 5%, optional with owner.	Yes.....	Cash.
Ft. Wayne, Ind....	Paving, front foot. Trunk sewers, square foot in district. Local sewers, square foot of abutting property.	Cash, or 10 equal annual payments with 5% int..	Yes.....	Cash.
South Bend, Ind....	Paving, front foot. Sewers, entirely by area..	Cash, or 10 annual payments.	Yes.....	Cash and improvement bonds.
Joliet, Ill....	The basis of benefits, practically front foot..	5 to 10 annual installments.	Yes.....	Cash and improvement bonds.
Rockford, Ill....	Paving, front foot. Sewers, basis of benefits..	Several annual payments..	Yes.....	Bonds.
Dubuque, Ia....	Front foot. In case of sewers, non-abutters within 100 ft. assessed.	Seven annual payments, with interest.	.....	Cash.
Sioux City, Ia....	Sewers, area within 100 ft. not separated by street or alley. Paving and others, per front foot.	Cash, or 7 annual payments at 6% interest.	.....	Cash, or assessment certificates bearing 6% interest.
Lincoln, Neb....	Sewers, area in district. Street improvements, front foot.	Pavements, 10 annual payments. Grading and sewers, 2 annual payments..	Yes.....	City warrants, paid in cash when assessments made.
Salt Lake City....	Front foot. For sewerage, 25 ft. deducted for corner lots.	Sewers and sidewalks, 5 annual payments. Paving, 10 payments.	Yes.....	Special tax warrants.
Butte, Mont....	Sanitary sewers, sidewalks, grading, sprinkling, opening streets, front foot; property paying 75% of cost of grading and street opening, all of other improvements. Paving, per sq. ft. in special improvement district..	Within 60 days of assessment resolution. Except that paving assessment in 3 to 8 years with interest at 6%.	Yes.....	City warrants.

theory of assessment is that of proportioning it to the benefits received, the differences lying in the several methods of determining the relative amounts of such benefits. Practically all of the cities permit property owners to pay assessments in cash or distribute payments over a number of years. The payment of contractors in other ways than by cash is referred to in the editorial columns.

Sewer Construction at Newton

ALTHOUGH there was laid in the city of Newton, Mass., during 1907 only 1.6 miles of sewers, of which 1.1 miles were 8-inch pipe extensions, there were several unusual difficulties to be overcome in the work which was done. In building an outfall sewer for the Waban District considerable trouble was experienced in crossing under the Cochituate aqueduct. Here the sewer was 26 feet below the top of the embankment over the aqueduct, and the material at the sewer grade was a very slippery quicksand under a water head of about 8 feet. The method employed was to tunnel by pushing telescopic tubes through the sand, a 12-inch and a 16-inch cast-iron pipe for the subdrain and sewer respectively being used for the final 12 feet. The work was carried on continuously day and night for two weeks. Elevations taken on the embankment over the aqueduct during the first part of the work, and later on the aqueduct when it was finally uncovered, showed no settlement.

In constructing a sewer on Boylston street a deposit of muck and peat to a considerable depth was found, which required special treatment to provide a foundation. The weight of the street filling had already caused considerable settlement at this point, carrying with it the brook culvert and causing the land at the sides of the street where it was unweighted to raise above its original elevation. For a part of the distance the excavation was carried to hard bottom and the trench filled with hard material. Where the peat was too deep for this treatment, some 60 piles were driven to support the sewer and drain.

A continuation of the Boylston street sewer was carried into Cook street, where tunneling was carried on at a depth of 30 to 40 feet below the surface. This was driven from four headings. There was much rock in the bottom of the tunnels, although the top ran through hard pan. For removing the rock drills were used operated by a 12 x 16 Class C Rand air compressor, this being supplied with steam from a 50-horsepower boiler. Progress was very slow and the expense correspondingly great, owing to the necessity of building a substantial timber roof. This roof was built of extra strength to support the soil above while blasting was in progress, and the operation was practically equivalent to driving two tunnels, one in rock and one in hardpan.

The cost of this last sewer was as follows: in Boylston street a 16 x 24-inch sewer 287 feet in length was built with an average cut of 25 feet, in addition to which there were built as construction subdrains 30 feet of 4-inch, 300 feet of 8-inch, and 290 feet of 10-inch subdrains. The total cost of this was \$6,944.46, an average of \$24.20

per foot. On Cook street from Boylston to Winchester, the same size sewer was built 221 feet in length, with one manhole and an 8-inch subdrain, the average cut being 23.6 feet; in addition to which a tunnel through rock and hardpan as above described was driven for a distance of 445 feet, but the sewer had not yet been laid therein. The cost of this Cook street work was \$14,593.71.

Notes from Two Oklahoma Cities

ENID, Okla., was one of the many towns in Oklahoma and Indian Territory (now the State of Oklahoma), which were laid out by the U. S. government when the land was opened up for settlers in 1893. It now has a population of about 12,000. In the plan as laid out a large plot of land two blocks in area in the center of the city was reserved for park purposes. This square has never been so developed as to make it at all pleasing; the rough and uneven ground shows no sign of attempts at improvement and is covered with untrimmed scrub oaks. As a county court house has just been completed in the center of this square, however, it is hoped that these conditions will be improved upon.

All the paving, amounting to about five miles, has been laid within the last two years. Storm sewers are built when the paving is laid, and concrete curb and gutter are constructed at the same time. About ten miles of sanitary sewers are in operation and a sewage disposal plant will probably be built to prevent pollution of the stream. The water supply is obtained from six wells. Water is found in these at from 20 to 35 feet depth, but the wells are carried to a depth of 125 feet to permit the use of an air lift. There are about 20 miles of water mains and 600 metered services in use.



MAIN STREET, TULSA

TULSA

Within less than a year Tulsa has built five miles of permanent paving, mostly asphalt, and storm sewers beneath the same. Four or five miles in addition are being built this year, most of it asphalt at a cost of \$2.22 per square yard on a 5-inch concrete base. About three miles of storm sewers are also being constructed. Only about one-half of the city has house sewers, but extensions are being made rapidly. At present the city is experiencing a boom, similar to that which western Pennsylvania went through under similar conditions, because of the oil fields near which she is located.

MUNICIPAL JOURNAL AND ENGINEER

Published every Wednesday by Swetland Publishing Company

THIRTY-NINTH STREET BUILDING
231-241 West Thirty-ninth Street, New York.

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SUBSCRIPTION RATES.

United States and possessions, Mexico, Cuba \$3.00 per year
All other countries 4.00 per year
Entered as second-class matter, January 3, 1906, at the Post Office
at New York, N. Y., under the Act of Congress of March 3, 1879.

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JULY 29, 1908

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Deferred Payments to Contractors

WHILE we have long been aware of the fact that some cities make a practice of making other than cash payments to contractors for municipal work, we must confess to surprise at learning, from the data given in the

table on page 143, that of a number of representative cities one-half follow this practice. We know from the contractors themselves that cash would be much preferable to them, and we believe that many contractors fail to bid on public work in these cities because of their inability to collect promptly for completed work. Although 6 per cent. is a fair interest in most parts of this country, few contractors can borrow money for conducting their work at rates any lower than, if as low as this; and with large amounts of cash tied up in these deferred payments their ability to take new contracts is largely restricted or is measured by their ability to borrow the necessary funds at rates generally exceeding this. This is a serious matter not only to the small contractor, but also to the large one, since the sums of whose use he is thus deprived are proportionately large. Moreover, this practice tends to confine bidding to local contractors, since the others do not wish to leave their money tied up in a city far from their home or permanent headquarters for months or years after they have ceased to have any other interest therein. In the larger cities, it is true that practically all contract work is done by local firms; but in the medium-sized and smaller cities this is not so often the case, and these are likely to suffer from this practice by receiving a less number of bids for any given work than they otherwise would, and both because of the lesser number and also because of the delay in not receiving cash in payment, the individual bids are apt to be somewhat high.

There seems to be no good reason for this practice, since the city could probably sell to its own citizens 6 per cent. bonds to cover the payment for these improvements in case they were not themselves able to advance the cash therefor while waiting for payment from the property owners. We believe the practice referred to is a great mistake for any city, and recommend that for the benefit of both themselves and the contractor they carefully consider the idea of changing to cash payments.

Houston's Public Utilities

IN 1906 the city of Houston, Tex., bought the water works from the private corporation and has since then practically doubled their capacity. All machinery is now in duplicate. About four miles of new main from the pumping station to the city, part of it 24 inches in diameter, will be in service before long; but aside from this the city has made few extensions of the pipe line, but has allowed the property owners in certain sections of the city to lay their own pipes and connect them with the city mains, the city afterward paying them a fair price for the same. Water is obtained from 46 artesian wells which furnished an average daily consumption in March of 9,821,000 gallons. Of the 8,500 services about 500 are metered and more are being added to this number constantly, it being the intention to eventually have all services metered. A monthly rental of 50 cents in addition to the charge for water is received for the meters, with the idea that this will cover repairs

and renewals. Our representative suggested that this rental seemed high, as it would pay for the meters within two or three years, while in many instances the life of a meter is twenty years or more. In reply it was explained that the quality of the water passing through them was such that a life of more than three years was not anticipated.

The city is quite completely sewered, the sewage all collecting at a central point whence it is pumped to a purification plant. At this plant the sewage rises through several sprinklers, or fountains, and is spread over coke beds from which it drains to sand filters for final treatment. The coke beds are cleaned about once in six weeks and the sand beds once in six months. The officials claim that very thorough purification is obtained, fish living in the effluent from the plant.

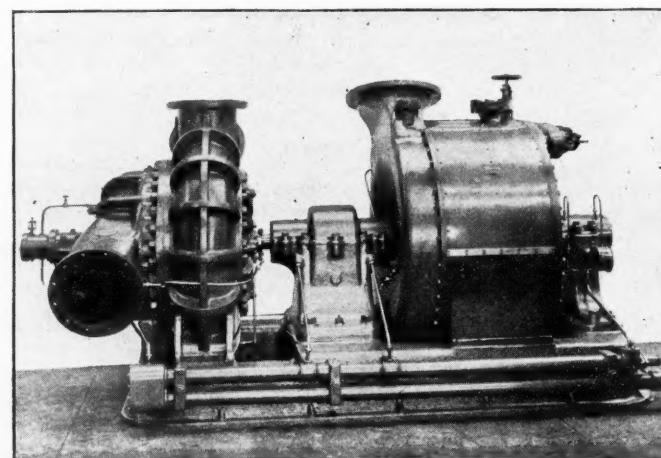
Wood paving of round burdock blocks is found in many parts of the city. In the business streets quite a little brick paving has been laid, much of which replaced wooden blocks which had been down 18 years and showed only about one inch of wear. So good were these blocks that most of them were relaid in other sections of the city at a cost of 18 cents per square yard. An experiment is about to be made of repairing asphalt streets with native Texas asphalt.

New York's Latest Fireboats

PRACTICALLY all the large cities of the country have adopted the policy of re-inforcing their fire protection equipment by fire boats which, while they can be of service along the water front only, are more effective there than any of the land engines in use. The city of New York has just added to its outfit the two largest fire boats in the world, the James Duane and the Thomas Willett, which were tested a few weeks ago and prove to exceed their guarantees by a very satisfactory percentage.

A brief description of these boats was given in the MUNICIPAL JOURNAL AND ENGINEER of October 2, 1907. As stated there, turbine driven centrifugal pumps are used and this was one of the features whose efficiency

remained to be demonstrated by the test, as these were the first boats of their kind to be so equipped. During the trial run they developed a speed of over 15 miles an hour. In a water-throwing test, at first three 3-inch nozzles on the Willett were opened when the pressure at the pumps was 175 pounds, and the dial gauge showed a nozzle pressure of 115 pounds when each of the three nozzles was throwing 3,200 gallons of water per minute. All the nozzles were then opened and 1,200 gallons of water was thrown while the boat was moving ahead at full speed. After this the pumps were connected in series on one nozzle, and a pressure was obtained of 315 pounds at the pumps and 230 pounds at the nozzle, when over 4,550 gallons of water a minute was thrown 400 feet to the wind, and to a height of nearly 300 feet, this distance being exceeded in a later trial.

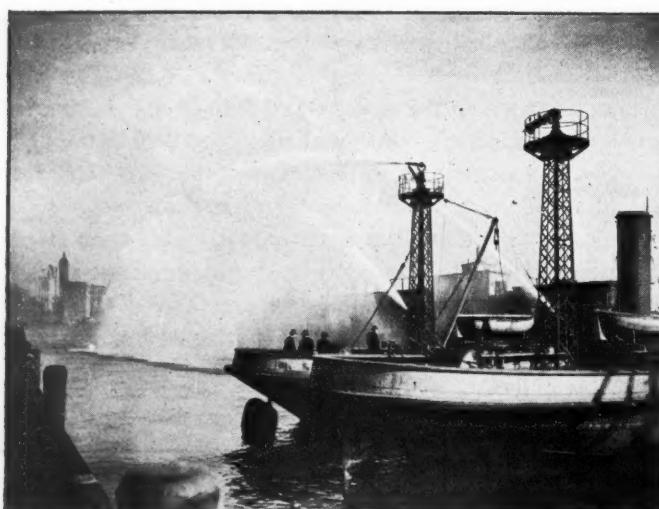


TURBINE-DRIVEN PUMP, NEW YORK FIREBOAT

The pumps are each twelve-inch, two-stage centrifugals of Worthington make, direct connected to Curtis turbine engines. They were designed for 4,500 gallons a minute each, against a boiler pressure of 150 pounds, but in the test exceeded this amount by one-third, and the builders claim that they could have made this 50%.

The Curtis turbines, built by the General Electric Company, are rated at 660 horsepower, but are capable of a 50% overload. They operate at a speed of 1,800 revolutions per minute. They are direct connected to the pumps by a flexible coupling, which on a trial is said to have demonstrated its superiority to the ordinary geared connection. During the test they pumped 9,000 gallons of water per minute against 150 pounds pressure, with a steam consumption of 9,000 pounds per hour.

The water front of New York protected by its fire boats, including all the bays and creeks, is approximately 600 miles, extending from the lightship at Atlantic Highlands to Mount St. Vincent, including both banks of the Hudson river; the Harlem and East rivers, with the islands therein; Long Island Sound to Sands Point; the Brooklyn water front; Gravesend Bay, Coney Island and Rockaway Beach; and Staten Island and the other islands in the bay. Not only the river front, but any ship in the harbor is entitled to claim the help of a fire boat.



THE THOMAS WILLETT IN ACTION

NEWS OF THE MUNICIPALITIES

Divers Subjects of General Interest and Their Treatment by City Councils and Officials—Streets, Water Works, Lighting and Sanitary Matters—Police and Fire Items—Government and Finance

ROADS AND PAVEMENTS

Concrete Foundation to Be Relaid

Altoona, Pa.—City Engineer Frank Engstrom has written a letter to a firm of paving contractors notifying them that the concrete foundation of Twenty-fourth street and Eighth avenues is not of the required thickness and does not contain the specified amount of cement. The contractor has been further notified to remove the concrete, excavate the roadway to the proper depth, and relay the concrete in accordance with specifications. As a result of the events that led up to this discovery there is a movement on foot among the property owners to form a taxpayers' association and secure the services of an inspector at their own expense.

Mayor Blocks Attempt to Steal Street

Jersey City, N. J.—Mayor H. Otto Wittpenn recently prevented an attempt to steal a Jersey City street. A high fence was being erected at the foot of Whiton street, when word was sent to the Mayor, who lives two blocks away, and he instructed the police to go to the place in force, tear down as much of the fence as was already up and stop any further work. Two corporations would profit by the closing of the street and each, professing ignorance, claimed that the other might be building the fence. The street ends at the tracks of the Central Railroad of New Jersey and on both sides at the foot of the street are buildings of the Boynton Furnace Company.

To Inspect Kansas City Boulevard

Leavenworth, Kan.—All the property owners along North Third street from Shawnee to the reservation have been extended a written invitation to go to Kansas City, Mo., to inspect the boulevard paved there according to the Imperial system, a kind of oil and gravel road. This kind of paving was chosen by Capt. J. E. Normoyle for paving Grant avenue, the driveway leading from the end of North Seventh street to Fort Leavenworth. The property owners along another street, Ottawa, are protesting against the paving of their street with brick and are expressing a preference for the more economical Imperial.

Lightning Burns Plans and Delays Paving

Paducah, Ky.—The paving of Broadway and Jefferson street with bitulithic has been delayed by an unusual occurrence. The street is first to be curbed with granite and the plans and specifications for the stone were sent to the granite quarries at Lithonia, Ga. Lightning struck the office of the quarry and the plans were burned up. City Engineer Washington will forward new specifications.

Sidewalk Campaign Instituted

Phoenix, Ariz.—Both the City Council and the Board of Trade are promoting a movement for better sidewalks. At a recent Council meeting announcement was made that on any block where property owners would build a sidewalk the city would stand the expense of building the rectangular sections at the block corners that do not abut on either the end or the side of the lot. Further, the city will build good crosswalks connecting any blocks on which sidewalks are laid. The City Engineer will furnish grades free of cost.

Road to Gettysburg as Lincoln Memorial

Washington, D. C.—A suggestion has been made to the Washington Memorial Commission, appointed by Congress to report on a suitable memorial to Abraham Lincoln, that

a boulevard be built from Washington direct to the Gettysburg battlefield, where Lincoln delivered his immortal address. Such a roadway would be exceedingly popular with thousands of American tourists who visit the National Capital each year. Many of these endeavor to associate the visit to Washington with a trip to the Gettysburg battleground, although it is not easy to make the trip under present conditions. But with the proposed memorial road, seventy-two miles long running direct to the battleground, fast motor cars would render the trip an easy one within a day's limits for every Washington visitor.

Sprinkling Roads With Oil Gives Satisfaction

Yonkers, N. Y.—Commissioner Ferguson of the Department of Public Works, speaking of the fact that he has caused a number of the macadamized streets to be sprinkled with oil, says it appears to give satisfaction. The oil soaks into the ground and stays there, and it is not easily evaporated by the heat of the sun. It effectually allays the dust, and even swift running automobiles do not disturb it. Its appearance on the surface of the streets and roads is not inviting, but as it mixes with the gravel this disappears. The Commissioner has been using an oil sprinkler loaned by Samuel Untermyer, of Greystone, and proposes to procure one or two for the city. The expense will be about the same as water sprinkling, which has to be done about three times a day, while oil will be required about once in three weeks.

SEWERAGE AND SANITATION

Civic Organization Appeals for Sanitation

Bordentown, N. J.—At a recent meeting of the Bordentown Board of Trade and Improvement Association an order of the State Sewer Commissioners to the effect that the town must cease to pollute the waters of the Delaware river by January, 1911, was read and the following appeal to citizens was issued:

(1) Is it for us to wait and be made an example of, or is it for us to set an example? (2) Shall we let outsiders build our sewers as costly as they please and assess us as they choose, or shall we build our own sewers with our own men and to meet our own needs? (3) Are we to be despised as a city behind the times, while house-owners are deterred from putting in baths and modern conveniences by having to pay 25 cents per barrel for sewage disposal, or are we to turn to use the tide of population brought by industries like Roebling and South Trenton, by offering homes containing attractions and improvements now customary and demanded? (4) Are we to continue the target for State discipline when, with labor and material plentiful and reasonable, and municipal bonds and contracts in high favor, we can wisely take the lead in complying with sanitary requirements of the State and be the envy of other cities instead of their scorn?

We hold that these are the questions for the people to answer at the polls, and we have unanimously resolved to support and endorse with our votes the immediate construction of sanitary sewers. To those who have the honor and prosperity of the city at heart, this appeal for your support is made.

Board of Health Bulletin Instructs Public

Buffalo, N. Y.—The midsummer number of the Buffalo Sanitary Bulletin, edited by Dr. Franklin C. Gram, registrar of vital statistics, and published by the Board of Health, has for its leading article a warning against the dangers of the common house fly. The article gives a popular account of the work of the fly in spreading disease and a series of tests easily understood by means of which the fact is proved. Rules are also given to guide the vacationist in his search for a summer residence.

City Employs Physicians for Babies

Chicago, Ill.—To save babies' lives the City Council has made a special appropriation of \$10,000. The deaths of babies, chiefly caused by the hot weather, have been of such frequent occurrence in Chicago that, according to relative figures, the deaths of infants this year will reach the startling total of 31,414. Alarmed at the prospects of this wholesale slaughter of the innocents, the Council authorized the transfer of \$10,000 to pay 100 physicians, who will be employed by the city to disseminate information concerning the causes and prevention of summer sickness among babies.

State Orders New Sewer System

Gouverneur, N. Y.—A communication has been received from Dr. Eugene H. Porter, State Commissioner of Health, calling attention to the fact that the sewerage system of the village is not satisfactory to the State Board and is a menace to the village itself and to towns below, notably Ogdensburg, which takes its water supply from the Oswegatchie river, into which the village sewers empty. The establishment of a plant will involve the addition of \$125,000 to the already heavy debt. It is a serious financial problem for the city.

Sanitation of Allegheny Valley

Harrisburg, Pa.—State Health Commissioner Dixon has taken steps to secure plans for the improvement of water and drainage conditions in several sections of the State and the campaign for the purification of streams is going forward in both the Allegheny and Susquehanna valleys. One of the most important steps taken is in the case of the borough of Ridgway, which suffered a severe outbreak of typhoid fever last year. In this town there are over 500 private sewers and the State has directed that a general system be created and that it be temporarily drained into the Clarion river. Plans for sewage disposal are to be made immediately after. Plans for similar work have been ordered made by Danville, on the Susquehanna; New Kensington and Parnassus, on the Allegheny; Mt. Union, on the Juniata, and at Pottstown, on the Schuylkill. Chester has also been ordered to prepare plans for sewage purification, and for improvement of its water supply.

Sanitary Survey of Lake Being Made

Michigan City, Ind.—The State Board of Health is engaged in making a sanitary survey of that part of Lake Michigan near Milwaukee. Samples of water will be taken daily at different places and depths, the object being to find an available place in the lake from which the city may get its water supply through the new intake now being laid. This survey is the first work of the kind that has ever been undertaken in Indiana.

Restaurants at National Capital Unclean

Washington, D. C.—A crusade against unclean restaurants has resulted in the arrest of 29 proprietors, including those of three or four hotels. One proprietor was commended for the condition of his establishment. The work has just begun under Health Officer Woodward. All of the 649 eating establishments of the city will be closely inspected. Out of 102 lunch rooms inspected so far, only seven were found to be in that condition of cleanliness required by law. One popular eating house that feeds hundreds daily and was supposed to be extra fine was said by the Health Officer to have the foulest kitchen and the worst sanitary conditions he ever saw. This was surprise No. 1; the next surprise was made in a five and ten-cent oyster and clam shop kept by a negro, which Dr. Motter, Chief Inspector, said was the cleanest place imaginable. The pots and pans were burnished until they shone, and not a fly or insect anywhere. If the floor had been a table, Dr. Motter said, he should have had no hesitation in eating from it. It was scrubbed so clean it looked too good to walk on.

WATER SUPPLY

June Sets Maximum Record for Water Consumption

Cleveland, O.—A new maximum monthly record for water consumption was established in June, and July is keeping up with the record. The amount pumped was 1,868,525,119 gallons, about 150 gallons per inhabitant per day. This amount of water would make a lake 500 feet wide, 20 feet deep and 4 3/4 miles long.

Water Plant Transferred to City

Franklin, Pa.—After twenty-five years' agitation of the question of acquiring the water company's plant, the transfer of the property has been completed by the presentation by Mayor Emery of an order on the city for \$260,000, the price agreed on and ratified by the citizens at an election in the spring.

Water Meter with Each Flat and Office

Madison, Wis.—Single water meters in flat and office buildings will not be permitted after January 1 next. After that date every flat and office suite must be provided with a water meter and the minimum rate will be charged. There are a considerable number of flats and office buildings in the city which are provided with only one meter. Consequently the owners pay for the amount of water consumed, while those having single meters are required to pay the minimum rate even though they do not use the amount of water to which they are entitled under that rate. The new rule was adopted to do away with discrimination.

Filtration Process on Exhibition

Lynn, Mass.—The Public Water Board has completed and put in operation a test filter near the City Hall and has issued a notice soliciting citizens to look into the method of filtration and to compare the water before and after it is filtered. The only difference perceptible to the ordinary citizen is in the color. At the present time the raw water has no disagreeable odor. A notable difference in the color is apparent, the filtered water being as clear as crystal. Official bacteriological tests will be made and published later.

Private Company Plans to Supply Four Towns

Marcellus, N. Y.—The Syracuse Suburban Water Company, of which Frank D. McGraw, of Buffalo, is president, is engaged in an enterprise for the supply of water to the towns of Marcellus, Camillus, Solvay and Eastwood. The level of Lake Otisco, a body of water four or five miles long and half a mile wide, is to be raised by a dam at the present outlet and shoal places will be dredged. The intake will reach 600 feet out into the lake. From Otisco the pipe line will follow the outlet to Marcellus, thence through the other towns, in all a length of twenty miles.

First Official Step Toward Acquiring Plant

San Francisco, Cal.—The Public Utilities Committee of the Board of Supervisors has agreed upon the wording of an ordinance calling for bids for a system of water supply and works supplying water to the city and county of San Francisco. The ordinance sets forth that it shall be printed for a period of thirty days; that the Clerk of the Board shall cause a copy of the ordinance to be personally served upon any known owner of a water plant now in operation in the city, with the request that the Board be informed at an early date as to the intention of such owner to submit an offer, as solicited by the notice of the Board included in the ordinance. In the event of a failure to receive any offer to sell to the city the public utilities mentioned, the ordinance declares it to be the plan of the Board to submit to the voters a proposition for the acquisition of a water supply system by original construction. The Board pledges itself to consider any and all propositions that may be submitted.

Meters to Stop Water Waste

New Castle, Ind.—Municipal ownership of the water plant in this city has proven more expensive each year, and has reached a point where radical steps must be taken by the city authorities. Since the failure of the gas wells owned by the city fuel bills have become an important item and the cost of operating the plant has largely increased. Using water at a flat rate, consumers have become careless, with the result that thousands of gallons of water are wasted each month. The waste has become so wanton that several times this summer the city would have been in great danger had a serious fire broken out. The waste has also increased the operating expenses, more than three times as much water being pumped at the plant as is necessary. After considering the matter the Council has decided to install meters.

Rapid Work in Pipe Laying

New Orleans, La.—Superintendent Earl, of the Sewerage and Water Board, reports that the work of laying water pipe in the business section is progressing splendidly. During the month of June 25,659 feet of pipe were laid by eight gangs in the downtown section, 51,808 feet by three gangs between Sixth and Calliope and 65,311 feet by the gangs between Basin and Broad. This is a total for June of 36 miles, making the total to date 355 miles. It is expected that the water works distribution system will be completed in October. Since June 22 the 4,000,000-gallon pump has been working continuously and the area served has been gradually extended.

City Acquires Water Plant

Pensacola, Fla.—On the first of July the plant and properties of the Pensacola Water Company passed into possession of the city of Pensacola, thus making the first municipal ownership of utilities in this city, and the second city in the State of Florida to take over plants of this nature. The city decided three years ago to take over the plant when it voted \$250,000 for the purpose, but delays in negotiations and in the sale of the bonds have put off the transfer of the property. A reduction in rates will be made in about six months, when the city will be in a position to figure more exactly what the service costs.

Will Give Two Kinds of Water

Welaka, Fla.—There is a well in Welaka from which two kinds of water may be drawn. This well is 300 feet deep. The length of the casing is 110 feet. The well was first drilled to 160 feet, and from this depth ordinary "sulphur" water was obtained. The drill was then carried to a depth of 300 feet, where it encountered a disagreeable, salty taste. In order to use both kinds of water an inner tubing was run nearly to the bottom of the well. Both this and the outer casing were connected with pumps, so that ordinary water and mineral water can be pumped at the same time.

STREET LIGHTING AND ELECTRIC POWER**Clinton Declares for Municipal Ownership**

Clinton, Mass.—At a town meeting a resolution to the effect that the town acquire a plant for the manufacture and distribution of gas and electricity for municipal use and the use of its inhabitants was passed by a vote of 223 to 27. The committee that was appointed last May to investigate the subject submitted a report and was retained to make further investigation. The Board of Selectmen was instructed to communicate with the Clinton Gas Light Company and request them, according to law, to file with the town clerk a schedule of the property it desires to sell and the price it intends to charge. The committee's report gave some figures regarding the approximate value of the gas company's property and the result of a conference with the Metropolitan Water and Sewerage Board. From the latter the information was secured that power could be taken from the Wachusett dam at a charge of \$15 per horsepower per year, and 2,500 horsepower would be available.

City and Capitalists Rivals for Power Plant

Deerfield, O.—J. C. Campbell, of Cleveland, promoter of the Trumbull and Mahoning Water Company, in which Cleveland and Youngstown capital is interested, has been in the vicinity of Deerfield for some time optioning land for the erection of a large dam near Shilling's mill. The project is understood to include the impounding of an immense body of water, which will be used to furnish a supply to Youngstown and other cities and also the erection of an immense power plant, operated by water power, which will develop electricity for lighting and power purposes for nearby towns. The city of Youngstown also has a scheme on foot of a similar nature, and there has been considerable rivalry in securing options.

Company Declines New Indeterminate Permit

Green Bay, Wis.—The Green Bay Gas and Electric Company will continue to operate under its franchise granted by the city of Green Bay. Under the recently enacted law, public service corporations were given the privilege of choosing to operate under what is known as the indeterminate permit or the franchise originally held by them and granted to them by the city in which they were doing business. The company, if it accepts the permit, is governed entirely by the State, and its right to do business depends entirely upon its service to the municipality it is operating in. If the behavior, so to speak, is good, the company may do business indefinitely, but if not the permit is revoked.

FIRE AND POLICE**Firemen May Catch Burglars**

Glen Ridge, N. Y.—Members of the Glen Ridge Fire Department do not take kindly to a suggestion made to them by Councilman George W. Hulsart, as chairman of the Police and Fire Committees. He asked the firemen to act as volunteer policemen to aid in running down the burglars who have been active in the borough of late. Fire Chief Russell will send a circular letter to each fireman giving him the power to act as special officer, when necessary, provided sanction is given by the Police Committee. The sum of \$200 will be given for the capture of a burglar.

High Pressure Tests Make Good Showing

Newark, N. J.—Tests of the high-pressure water service on Broad street, between William and Walnut streets, were recently made under the direction of Chief Astley in the presence of a delegation of engineers of the National Board of Underwriters. Forty firemen were detailed from various companies to couple the hose and adjust different nozzles. Sixteen lines of hose 250 feet long, equipped with 1 1-4-inch nozzles, were supplied by four high-pressure hydrants. One line got away and drove the men from three other lines until the water was shut off. Both the Chief and the Fire Board have recommended an extension of the service, a direct gravity system, and the test will add impetus to the movement.

City Hall Converted Into Police Station

Pittsburg, Pa.—The old Allegheny City Hall is being remodeled into a police station. The cells for prisoners will all be placed on the first floor instead of in the basement, as they now are. Drill rooms, magistrates' offices, detective headquarters, etc., will be arranged for and the Allegheny station will be one of the finest in the greater city.

No Private Fire Alarms

Portland, Ore.—The death knell to all proposed franchises for automatic or auxiliary fire alarm systems in this city to connect with the city fire alarm system was sounded at the meeting of the City Council, when all action in regard to the petition of the American District Telegraph Company for such a grant was indefinitely postponed. Chief Campbell, of the Fire Department, and City Electrician Savarian have entered strong protests against any private corporation connecting wires to the city fire alarm system.

Police and Firemen Must Have Good Teeth

Washington, D. C.—An order has been issued by the District Commissioners that applicants for the Fire and Police Departments, in order to be accepted, must have good teeth. Artificial teeth will not be accepted as the equivalent of sound natural teeth. In justification of this action "Tuplee's Manual" is quoted as follows:

"As digestive disturbances, due to errors in diet, irregular hours for meals and rapid eating, are the cause of a considerable amount of lost time in the Police and Fire Departments, the Board of Surgeons, in rejecting candidates with poor teeth, eliminates an additional cause—improper mastication of food, recognized by all as one of the chief causes of digestive troubles."

GOVERNMENT AND FINANCE

City Secures High Interest on Deposits

Beaumont, Tex.—City Council has recently received and accepted a bid of the Park Bank and Trust Company to pay the city 6.01 per cent. interest annually on daily city deposits and also act as city treasurer. This is the highest rate of interest paid to any city in Texas.

Would Investigate Assessors' Methods

Boston, Mass.—Councilman Charles T. Harding, Chairman of the special Council committee which made the investigation of the Transit Commission's land takings for the Washington street tunnel stations, is now desirous of having the assessors' method of taxing property investigated. He charges that the assessors tax some real estate at twice what it sells for, and other property at one-third or one-fourth its selling value. He says further that there are spaces which were private alleyways and as such were exempt from taxation and have since been built over and should now be taxed.

Ordinance Regulating Charges for Public Utilities

Dallas, Tex.—An ordinance has been passed to regulate the procedure by which the price charged for public utilities may be regulated. An investigation as to fairness of rates may initiate with the Board of Commissioners or in response to a petition of 200 voters. Preliminary to the citation of the company supplying the utility, a complaint shall be filed with the City Attorney setting forth the conditions objected to. The reduction in price desired must be stated. A written notification embodying the complaint shall be addressed to the corporation concerned and shall require it to show cause, if any, why the price should not be reduced. A hearing will be held on a day named in the citation. Answer to the citation will be made in writing. At the hearing the corporation may be represented by counsel and may adduce testimony in its own behalf, using the machinery of government of the city for that purpose. Testimony will be taken under oath. The Mayor will pass on the admission of testimony. The hearing will be public. No rate scale of charges or tariff shall be prescribed by the Board of Commissioners unless same shall permit the plant of the corporation to yield an income of 10 per cent. per annum on the investment. The rate adopted will become effective through an ordinance permitting readjustment of the price wherever business conditions fluctuate or require it to be done.

Auditing of Bills Improved

Holyoke, Mass.—Mayor Avery and City Auditor Kenney find that the system of auditing bills adopted a few months ago greatly facilitates their work. Bills are turned in more promptly and are more carefully looked over than ever before. Practically all of the bills of every department now bear the signature of some one person who certifies that he has examined the bill and vouches for the quality, quantity and price of the goods invoiced.

New Charter for Lockport

Lockport, N. Y.—The Charter Revision Committee appointed by Mayor Baker has met and organized with Alderman-at-Large Daniel C. Carroll as chairman and Attorney W. H. Ransom as Secretary. The other members of the Commission are City Attorney Clarence P. Baker, Attorney Abner T. Hopkins and William A. Williams, merchant. The Commission is busy securing copies of charters of all the cities of the State of New York, together with such information as will bring before the Commission the best ideas, legal and practical, from all parts of the State for the enlightenment of the Commission. After these have all been received and arranged the work of compiling a model city charter will be started by the Commission. It means a vast amount of work. One of the members stated that the suggestions of any person or persons would be gladly received by the Commission, and in fact such suggestions are desired. They can be sent either to the Secretary or any member of the Commission. The final report of the Commission must be made on the first Monday in November.

Commission Government Agitated in Memphis

Memphis, Tenn.—The commission form of government is being advocated by the City Club. A report containing a sketch of the proposed charter has been drawn up. This will probably be put in the form of a Legislative bill and submitted to the General Assembly. Public meetings under the auspices of the club are held, at which persons interested are invited to express their views of city government.

State Committee to Inspect New York Finances

New York, N. Y.—The joint committee of the Senate and Assembly appointed at the last session of the Legislature to investigate the Finance Department of the city, with a view to finding some improved method for the keeping of the city's accounts and books and to ascertain definitely just what are the assets and liabilities of the city, has met and organized. The committee is made up of Senators Cassidy, Saxe and McCarren and Assemblymen Merritt, Bennett, Oliver, See and Palmer. It seems likely that the committee will to some extent duplicate the work which was undertaken by Benjamin F. Tracy, appointed by Justice Blanchard as a referee to report to the Supreme Court which of the outstanding bonds of the city shall be calculated as part of the funded debt and to take evidence as to the city's borrowing capacity.

Comptroller Inspects Contracts

Rochester, N. Y.—At a meeting of the Finance Committee of Council, Comptroller Pond rapped the manner in which the work of contractors is inspected prior to the presentation of the final estimate. It appears from Mr. Pond's statements that he does not take the word of the inspector from the Engineering Bureau, but sends out a man from his own office to make a final inspection before he pays the contractor. The Comptroller told of several instances where his man found improvements improperly completed, especially in the matter of cleaning up debris. In one instance where payment was refused a contractor because of improper execution, the contractor at once put men and teams at work and continued into the evening in order that he might receive his money the following morning.

To Value All City Property

Seattle, Wash.—In order that there may be a valuation of all city property and improvements to set up as an asset in the new system of municipal accounting, now in course of installation, the Board of Public Works has been delegated by the Finance Committee of the Council to make an appraisal of city property and improvements of every kind. This will include all kinds of street paving

and sidewalks, sewer pipes of various sizes, water mains, vacant lots and tracts, fire engine houses and equipment, municipal buildings, public comfort stations, pumping stations, reservoirs, and, in fact, every article of tangible or intangible property in which the municipality has ever made an investment. The expert accountants have asked that street paving, sidewalks and sewer and water pipes be appraised at the amount at which the same could be installed at the present time, deducting a proper amount for depreciation.

REFUSE COLLECTION AND DISPOSAL.

Oakland Undertakes All Street Sprinkling

Oakland, Cal.—The work of street sprinkling will be under city control within sixty days, when twenty watering cars purchased from the Studebaker Brothers Manufacturing Company, South Bend, Ind., have been delivered. It is believed that the Board of Public Works can do this work at about half the price hitherto paid to contractors.

Pittsburg Saves Money by Garbage Disposal

Pittsburg, Pa.—Director E. G. Lang says that by paying for the disposal of garbage on the North Side at a fixed price per ton the city will save \$8,000 during the next six months. The old contract price was \$39,000, but under the new system the director believes it will not cost more than \$31,000.

Makes Comparative Tests in Dust Laying

Plainfield, N. J.—The city is making comparative tests of asphalt oilene and tarvia for laying the dust on macadam streets.

Health Office Would Have Garbage Cremated

San Jose, Cal.—Health Officer Charles H. Walker, in a recent report to Council, says that San Jose is sadly in need of a better way of disposing of its garbage street sweepings and dead animals. As it is now this is carried on in a very ineffectual manner by private parties, who lease a certain tract of land just outside the city for a dumping ground. This dumping ground is a veritable incubator for rats, flies and mosquitos and by these agents the product of decomposition is carried back into the homes and into the food. The Board has had a committee investigating the various kinds of garbage crematories and it is hoped will soon be ready to report on plans and cost of a modern and up-to-date crematory.

PARKS AND OUTDOOR ART

Ordinances Regulating Use of Parks Passed

Grand Rapids, Mich.—An ordinance has been passed to regulate the use of the public parks and to provide for the preservation of public property in them. The acts prohibited are: Injury to any tree, carrying away any article, admission of any domestic animal, objectionable language, disturbing other people, depositing rubbish, carrying of firearms, soliciting subscriptions, distributing advertisements, injury to birds or fish, picnics in certain localities, making speeches, fouling of pools, kindling fires.

Design for Soldiers' Monument Accepted

Malden, Mass.—The soldiers' monument, for which the city appropriated \$15,000 more than a year ago, is to be erected in Bell Rock Park and it is proposed to have it dedicated Memorial Day, 1910, the cornerstone to be laid on May 30 of next year. The design of Bela L. Pratt of Boston has been accepted and the commission is well pleased with it. The monument is to be 28 feet high, the figures 7 feet 6 inches and the pedestal from 8 to 10 feet. The figures comprise a sailor, a soldier and a color-bearer, the color-bearer being the central figure holding the stars and stripes over his head. The soldier and sailor are in kneeling attitudes at either side. The two kneeling figures hold a musket and

carbine, respectively, in firmly gripped hands, as though prepared to take aim. Each figure is that of a courageous, determined man and the costumes, accoutrements and other details are historically correct. The group is an impressive and beautiful one and the surrounding terraces and landscape effects were used by the sculptor as a setting. The pedestal will be constructed of some warm-colored granite and a tablet will be provided upon which a suitable inscription or the names of soldiers and sailors will be placed.

Harmony and Beauty in Street Openings

Memphis, Tenn.—A resolution was passed at a meeting of the City Club urging the Council that in the matter of street openings and extensions careful regard be paid to the alignment of such streets and avenues with respect to landscape effect. It is suggested that unsightly set-offs be avoided wherever possible, and that a uniform width be maintained, especially in the more handsome boulevards now under construction, and that no unsightly protrusions of lots into the line of the avenue be permitted, even though increased expense for condemnation of the projecting property should be incurred. The streets are being builded for the future and not as temporary utilities, and nothing should be permitted which would mar the harmony and beauty of landscape effect.

Hot and Crowded Playgrounds No Benefit

Newark, N. J.—Superintendent of Schools Poland recently told the Committee on Buildings, Grounds and Supplies of the Board of Education that unless school playgrounds are looked after more carefully the Board might better close some of them. Some of them are hot and dusty and when crowded to the limit with children they were a source of injury rather than benefit. In one playground a thermometer registered 110 degrees. In his opinion the grounds should be sprinkled often and awnings should be erected and settees placed so that the children could rest.

Park as Memorial to Former Governor

New Cumberland, Pa.—As a memorial to Governor John W. Geary, Market square is to be parked and laid out in grass plots and flower beds. In the center of the square, in front of the old home of the former Governor, a fountain will be erected and about the park will be a granolithic curb.

Begins Refencing Broadway

New York, N. Y.—Refencing and replotting Broadway from Fifty-ninth to One Hundred and Thirtieth street, over the rapid transit subway, has begun under the auspices of the Park Department. Ever since the building of the subway the old park strip between the driveways of Broadway has been in a deplorable condition—almost shrubless. But professional tree planters, who say they are able to make trees flourish under the seemingly adverse conditions, will now replace the old trees with new ones. The resolution under which the work is being done provided an appropriation of \$55,000 for refencing and \$50,000 for replotting the parkway.

Drinking Fountains for Washington

Washington, D. C.—Plans for requesting all churches in the city to install drinking fountains in front of their houses of worship and for asking the District officials to equip all street corners in the business section of the city with such fountains are being considered by the citizenship department of the Christian Endeavor Union, and some definite steps are expected to be taken at once. The project was briefly outlined in the report of the work of the department for the past year presented at the annual meeting.

RAPID TRANSIT

Free Transfers to Be Given Trial

Cleveland, O.—That Cleveland will have universal transfers with a three-cent fare for awhile is the decision of the officials of the Municipal Traction Company. In view of the failure of the company to pay expenses with a one-cent charge for transfers, it is not likely that the experiment will last long. In that case it is likely that a 4-cent fare, with free transfers, will be tried. In any event, Mayor Johnson and the directors of the Municipal are determined that the company shall earn enough to pay its expenses and keep the lines from reverting to the Cleveland Railway Company.

Aldermen Want Cheaper Trolley Fares

Hartford, Conn.—Alderman Creighton has introduced a resolution looking to cheaper trolley fares, asking for the appointment of a special committee of two Aldermen and four Councilmen to act with the Railroad Committee in consulting with the street railway officials on this matter. He proposed that the conductors be given tickets to sell at the rate of 6 for 25 cents, 12 for 50 cents, and 25 for \$1. Alderman Kelley moved an amendment, making the special committee consist of one Alderman and two Councilmen, with Alderman Creighton as chairman in charge of both committees. The amendment was passed.

New Transit Plan Under Discussion

New York, N. Y.—The recent statement of Edward M. Bassett, Public Service Commissioner, that during the next twenty years much attention must be given to depressed roads and to elevated systems of a handsome and noiseless type, has caused much discussion among real estate men, coming, as it does, at a time when subways are generally regarded as the most practicable. Edward J. McCornish, commenting on Mr. Bassett's views, says: "The building of elevated lines through the center of blocks having business establishments on either side seems more practicable and permissible than their construction in the street in front of business houses, as is the case to-day. Through certain classes of tenement districts it should be so also. The present idea includes, however, the plan of condemning, where possible, the entire block. Through its center would run the elevated railway, while on either side the property could be transformed into a public park. The space directly beneath the elevated structure could be made a sheltered playground. On one side, perhaps, the open surface space could be made available for a motor parkway. Such a system could be easily established in many parts of Brooklyn, where most of the blocks are 700 feet long by 200 wide."

District Railway Commission Gets to Work

Washington, D. C.—The newly appointed District Railway Commission has organized and begun its work of investigating complaints, and has also adopted rules regarding the operation and equipment of cars. The use of fenders and wheel guards of certain prescribed patterns is required. Platforms are to be guarded by gates of approved construction. The speed of cars is limited to fifteen miles an hour within the city and twenty miles in the suburbs. Questions of right of way of cars on tracks crossing each other are prescribed. Flagmen must be provided at crossings when required. The interval between cars is fixed at 100 feet. Two lights are required on cars at night.

The Washington Railway and Electric Company, through its vice-president, General George H. Harries, and the Capital Traction Company through President George Hamilton, have written letters to the District Railway Commission which are interpreted as a denial by these companies of the authority of the Commission and a refusal to give information requested by it. Not to be checkmated, the District Railway Commission has requested the Interstate Commerce Commission to take up directly with the railway companies the matter which the lines practically refuse to consider with the District Railway Commission.

MISCELLANEOUS

Traffic Ordinance Passed

Lexington, Ky.—An ordinance has been passed prescribing rules and regulations to be observed by persons driving vehicles on the streets of the city. The general rules of the road as observed in New York and other large cities are prescribed. Questions of right of way are defined. The respective duties of drivers and pedestrians are stated. Fines are prescribed.

Mayor Auctions Telephone Franchise

Lexington, Ky.—Mayor Skain recently acted as auctioneer and he apparently proved to be a good one. The occasion was the sale of a telephone franchise advertised under a recent ordinance. The Fayette Home Telephone Company made the following bid: The sum of \$250 a year for the first five years, \$300 a year for the second five years, \$350 yearly for the third period and \$400 yearly for the last period of five years. The company will furnish five free telephones for the city and pay the cost of advertising for bids.

Louisville Amends General License Regulations

Louisville, Ky.—The general license ordinance has been passed, with some new features. It has been so amended as to increase the licenses of dealers in bowie knives, dirks, brass knuckles, sling shots, etc., from \$100 to \$1,000 a year, and charging those engaged in the trading stamp business, including those who place tags on bread and tickets in flour, etc., which are good for premiums, \$1,000 a year. The license of private detectives is fixed at \$25, private policemen \$5. Public garages must pay \$100.

Mayor Would Clear Streets of Standing Vehicles

Providence, R. I.—Mayor McCarthy has addressed an open letter to the Board of Police Commissioners requesting them to enforce strict compliance with the city ordinances governing the obstruction of travel by vehicles left standing in the streets in the business section. He also recommends that certain streets be kept free from automobiles on Saturday afternoon and evenings and at other times when the streets are crowded. The iron nerve machine must give mankind the right of way in Providence.

Many Dogs Killed Since Muzzling Order Was Made

Washington, D. C.—During the first month that the dog muzzling ordinance has been in effect, the Health Department has captured and killed more than 1,000 dogs. There are now in service four wagons for the impounding and collection of dogs, whereas last year there was only one. In addition to the work done by the pound service, the police are now authorized to arrest any person allowing an unmuzzled dog to run at large. This is an effectual remedy for the practice of allowing dogs to run at large in the evening.

Public Bath for Hoboken

Hoboken, N. J.—E. H. H. Horwood, President of the Hoboken Board of Trade, who is working night and day to interest citizens of Hoboken in his project of building a public bath for the city, reports that as far as he can see every indication points to the fact that his efforts will be crowned with success.

Standpipes for High Buildings

Jacksonville, Fla.—Mayor N. H. Sebring has sent a message to Council suggesting that an ordinance be passed providing that standpipes be placed in all large buildings. He calls attention to the fact that a large number of eight and ten-story buildings are being planned and erected. The standpipes would effect a great saving in time in getting hose to an upper floor and engines can be attached direct to the standpipes.

LEGAL NEWS

A Summary and Notes of Recent Decisions—Rulings of Municipal Interest

CONTRACTS—INTEREST OF COUNCILMAN

Bradley & Gilbert Co. et al. vs. Jacques.—Kentucky statute 1903, which provides qualifications of Councilmen, and provides that Councilmen shall not be interested in any contract with the city, or hold any office or employment in a corporation having a contract with the city, is not a mere declaration of eligibility to office, but renders void a contract between the city and a member of the Council, or between the city and a corporation which has a member of the Council as one of its officers or in its employ. Kentucky statute 1903 provides that Councilmen shall not be interested in any contract with the city, or hold any office or employment in a corporation having a contract with the city. Section 2822 provides that an expenditure by a contract, written or oral, of an amount less than \$2,000, must be made with the Mayor's approval unless otherwise provided by ordinance, that an expenditure to exceed that amount must have the Mayor's approval, and that supplies and other forms of personal property shall be purchased by the city buyer subject to the provisions of that act. Held, that the term "contract" in Section 2768 extends to the case of where goods are not ordered or bought under a formal preexisting contract, and the city simply goes out into the market and buys its daily supplies as it needs them.—Court of Appeals of Kentucky.

REMOVAL OF SNOW AND ICE

Cupp vs. City of Elmira.—In an action for injuries received by falling on a sidewalk because of snow and ice thereon, where there had been snow and ice on the sidewalk for two weeks, and the temperature was uniformly below the freezing point, except for portions of three days, when it snowed and rained, and the sidewalks of the city were partly covered with ice during that time, and these conditions were general throughout the city, no duty existed on the part of the city in reference to the particular sidewalk where plaintiff fell which did not exist as to all the sidewalks of the city, and the weather conditions were such that the city was not obliged to remove the snow and ice from the sidewalks so as to keep them free, and hence was not liable for injuries resulting therefrom.—New York Supreme Court, Appellate Division.

DEFECTIVE STREET GRADING

Stadelmann vs. City of New York.—Where a city had partially graded the roadway of a street in an outlying district, so that the bed of the highway at the point in question was between 4 and 7 feet below the top of the adjoining bank, and the city never constructed any sidewalks along the top of the bank, which was rough and in a state of nature, the city was not negligent in failing to improve the top of the bank, and was not liable for injuries to plaintiff, who attempted to use the bank on one side of the cut as a sidewalk on a dark night, and while walking there fell into a transverse ditch about a foot wide and between 12 and 18 inches deep, sustaining the injuries complained of.—New York Supreme Court, Appellate Division.

REMOVAL OF POLICEMAN—PENSION

Reynolds vs. Bingham, Police Commissioner.—An unscientific and bungling statute cannot be construed and interpreted by the same strict scientific rules as a consistent and scientific one. Greater New York Charter, Laws 1901, provides that any member of the police force of twenty years' service shall "be relieved and dismissed from said force and service and placed on the roll of the police pension fund" upon a certificate of police surgeons showing that he "is permanently disabled, physically or mentally, so as to be unfit for duty." Section 357 varies the phraseology of Section 355, and provides that no member of the force shall be granted a pension "on account of physical or mental disability or disease," except on such a certificate "which shall set forth the cause, nature and extent of the disability, disease, or injury." A surgeons' certificate recited that a police officer of more than twenty years' service was "permanently disabled physically so as to be unfit for duty; that the cause, nature and extent of the disability is defective vision in both eyes, 15-100 in each eye. Extent, complete." Held, that the certificate was sufficient under each section, as it certified not only to the character of the disability, but also its cause.—New York Supreme Court, Appellate Division.

MUNICIPAL OFFICES—RIGHTS TO COMPENSATION

Woods vs. Potter, Auditor of City of San Diego.—Members of City Councils occupy a position of trust, and are bound to the same measure of good faith towards their constituents that a trustee is to his cestui que trust, and the mere fact that a member of such a body acts as such in connection with any matter in which he is interested vitiates the transaction. No contractual relations arise between an officer and the State by reason of the election or appointment of the former. There is no implied obligation to pay him for his services, and to recover he must show a right by law to compensation. In order that a charter officer shall be entitled to compensation for his services, the burden is on him to show that either the charter which created the office, or the legislative or constitutional authority under which the charter was framed, attached to that office the right to receive pay for his services. The freeholders' charter under which the city of San Diego was organized took effect in May, 1889, and contains provisions relating to the compensation of all the charter officers of the city, except the members of the Common Council, as to whom it is silent. Article 2 authorizes the Council to make rules for the government of all employees, officers, etc., and to fix salaries and wages not otherwise provided by general laws or by the charter. Article 3 reads: "The annual salaries of the officers and the compensation of the employees of the city shall be as follows: (Salary for Mayor and other officers as to whom the amount to be received is fixed.) And all other officers and employees as may be fixed by the Common Council, and all salaries shall be payable monthly." In 1905, by an amendment of the charter, the number of members of the Council was changed from twenty-seven to nine, but no change was made in the provisions of the charter relating to official salaries. Held, that the Council had no power to create salaries for its members.—Supreme Court of California.

STREET OPENING PROCEDURE

In re Avenue D in City of New York.—Where the report of Commissioners in street opening proceedings did not specify whether their valuation of property taken or damaged was made as of the date when title vested, or as of the date of their report, objectors should have moved to remand the report to the Commissioners, with instructions to make such correction.—Court of Appeals of New York.

TRACK ELEVATION

City of Chicago vs. Hulbert.—Where an ordinance recommended by the Board of Improvements is passed by the Council, the act is that of the Council and not of the Board. An ordinance providing for paving a street is not void because it establishes for the first time, or changes, the grade of a street or the width of a roadway. A track elevation ordinance, requiring a railroad company, in constructing a subway, to pave the roadway in the subway in accordance with certain specifications and requirements, and that the approaches should be restored as near as possible to their condition before excavation, does not require the approaches to be paved. Where a track elevation ordinance directed that the elevation of the floor of a subway should not be less than 21.96 feet above city datum, and that there should be 12 feet clear head-room, a paving ordinance fixing the elevation of the floor at 23.8 feet above datum is not inconsistent therewith. A paving ordinance, providing for a uniform decline in the approaches of a subway at a fixed grade, is not in conflict with the track elevation ordinance, requiring a vertical curve, since it is merely changing the grade. The necessity for paving streets and the kind of pavement to be used are questions committed by law to the City Council, and an ordinance passed by it for a city improvement will only be declared void for unreasonableness when clearly shown by the evidence to be arbitrary, unjust and oppressive.—Supreme Court of Illinois.

BONDS—SEPARATE PROPOSITIONS

Rea et al. vs. City of La Fayette et al.—When several distinct and independent propositions for the issuing of bonds by a municipality are submitted to the qualified voters of a town or city, provision should be made in the submission for a separate vote upon each. They cannot be lawfully combined and submitted to the voters as a single question.—Supreme Court of Georgia.

SALARY—ACCEPTANCE

McGrade vs. City of New York.—A Fire Department clerk, having become legally entitled to a salary of \$1,500 a year, by accepting monthly payments at the old rate of \$1,350 a year did not estop himself from receiving the difference.—New York Supreme Court, Appellate Division.

THE WEEK'S CONTRACT NEWS

Relating to Municipal and Public Work—Street Improvements—Paving, Road Making, Cleaning and Sprinkling—Sewerage, Water Supply and Public Lighting—Fire Equipment and Supplies—Buildings, Bridges and Street Railways—Sanitation, Garbage and Waste Disposal—Police, Parks and Miscellaneous—Proposals and Awards

To be of value this matter must be printed in the number immediately following its receipt, which makes it impossible for us to verify it all. Our sources of information are believed to be reliable, but we can not guarantee the correctness of all items. Parties in charge of proposed work are requested to send us information concerning it as early as possible; also corrections of any errors discovered.

BIDS ASKED FOR

STATE	CITY	RECEIVED UNTIL	NATURE OF WORK	ADDRESS INQUIRIES TO
Street Improvements				
New Jersey	Jersey City	July 30, 10 A.M.	Bldg. rdwy. on Hudson Blvd.; also new concrete curb and gut.	J. C. Sweeney, Clk. Co. Blvd. Com'rs
Ohio	Hamilton	July 30, noon.	Paving Third St. alley, any material.	Chas. Pabst, Sec'y Bd. Pub. Serv.
Ohio	Byesville	July 30, noon.	Brick or asphalt block paving, etc., Main and Depot Sts.	O. M. Hoge, Cambridge, Eng'r.
Ohio	Mansfield	July 30, noon.	Grading and macadamizing 2,070 ft. road, Weller twp.	C. L. Bushey, County Surveyor.
Pennsylvania	Pittsburg	July 30.	Rebuilding 8 1/2 miles Little Deer Creek Valley Road.	F. P. Booth, County Controller.
New Jersey	Newton	July 31, 11 A.M.	Grading and macadamizing 3 1/2 miles road in County.	Board of Chosen Freeholders.
Ohio	Cincinnati	July 31, noon.	Wood block paving, granite curb, grading, etc., Cross Lane.	John J. Wenner, Clk. Bd. Pub. Serv.
New York	New York	July 31, 2 P.M.	Laying sidewalks various streets and aves. in Manhattan, inc. 31,588 sq. ft. new flagstone and 9,692 ft. old.	
Pennsylvania	No. Braddock	July 31, 3 P.M.	Paving parts of several streets.	John F. Ahearn, Boro President.
Illinois	River Forest	July 31, 8 P.M.	Paving, grading, curbing and guttering sundry Sts.	C. A. Stewart, Boro Eng.
Ohio	Portsmouth	August 1, noon.	Cement or stone sidewalks at Children's Home.	P. B. Klock, Pres. Bd. Local Imp.
Indiana	Anderson	August 1, 2 P.M.	Constructing 23 separate gravel roads, aggregating 50 miles.	W. C. Silcox, Clk. Bd. Trus. Chl. Hme
Wisconsin	Fond du Lac	August 1, 3 P.M.	Improving portion of Forest avenue.	Madison County Commissioners.
New Jersey	River Vale	August 1, 7 P.M.	Macadamizing Leslie and Westward Aves.	H. G. Hering, Jr., Hillsdale, Eng'r.
Indiana	Greencastle	August 1.	Bldg. 5,286 ft. macadam road; also 10,833.9 ft., Jeff. twp.	D. V. Moffett, County Auditor.
Louisiana	Lafayette	August 1.	Constructing cement sidewalks; 2 1/2 to 10 miles long.	J. P. Colomb, City Secretary.
Wisconsin	Bangor	August 1.	Constructing cement sidewalks on north side.	J. D. Vaughan, Clk. Sch. Bd. Dist. No. 6
Indiana	Columbus	August 3, 10 A.M.	Constructing 10,637 ft. gravel Bonnel rd., Clay tp.	John M. Davis, County Auditor.
Ohio	St. Bernard	August 3, noon.	Bldg. art. stone sidewalks on Sullivan Ave.	Geo. Schroeder, Village Clerk.
Ohio	Cincinnati	August 3, noon.	Paving with granite, portions of 3 streets, curb, etc.	John J. Wehner, Clk. Bd. Pub. Serv.
Indiana	Brookville	August 3, 1 P.M.	Constructing 10,300 ft. gravel rd., Ray and Salt Creek tps.	Chas. A. Miller, County Auditor.
Florida	Jacksonville	August 3, 2:30 P.M.	Vit. block paving, and grading 5,200 sq. yds., 2,796 lin. ft. curb, etc., Fourth St., also 10,000 sq. yds. vit. bk. pav., Myrtle St.	
Kansas	Laurence	August 3, 5 P.M.	Various street improvements; brick paving, etc.	Philip Prioleau, City Engineer.
Washington	Olympia	August 3, 5 P.M.	Paving, 7,500 sq. yds., any material, 4th and Col'bia sts.	F. D. Brooks, City Clerk.
Illinois	Caseyville	August 3, 7 P.M.	Laying 12,000 to 15,000 ft. granitoid sidewalk.	Millard Lemon, City Engineer.
New York	Johnstown	August 3, 7:30 P.M.	Paving 11,164 sq. yds. Clearfield brick, N. Perry St., curb, etc.	Henry Koblitz, St. Village Clerk.
Ohio	Utica	August 3, 7:30 P.M.	Brick paving, 15,000 sq. yds.; curb and gutter 10,000 lin. ft.	Frank Bogaskie, City Clerk.
New York	Yonkers	August 3, 8 P.M.	Regulating, grading and improving certain streets.	E. L. Mantonya, Village Clerk.
Indiana	Delphi	August 3.	Heavy st. grading, cement curb & gutter, sidewalks, \$30,000	Jas. D. McIntyre, Sec'y Bd. C. & S.
Indiana	Sullivan	August 3.	Constructing 1,320 ft. of stone road.	W. H. Bradshaw, City Engineer.
Indiana	Tipton	August 3.	Bldg. 5 macadam roads, 42,738 ft. long, Madison twp.; 9 roads 57,537 ft., Liberty twp.; 2 gravel, 4,094 ft., Jeff. twp.	E. E. Russell, County Auditor.
Pennsylvania	Canonsburg	August 3.	Paving 37,992 sq. ft., grade less than 5 per cent.; stone or concrete curb, grading; cost, \$6,000 to \$6,500.	J. F. Barlow, County Auditor.
Indiana	Laurenceburg	August 3.	Paving with crushed stone 3 roads, 86,644 ft. long.	J. M. Farmer, Boro. Eng'r.
North Dakota	Fargo	August 3.	Creo. block or vit. block paving on concrete, 4 streets.	Wm. S. Fagaly, Dearborn Co., Aud.
Iowa	Burlington	August 3.	Brick paving, 4 blocks: tarvia, 2; macadam and tarvia, 3 blocks	N. C. Morgan, City Auditor.
Ohio	Ottumwa	August 3.	Paving nine blocks with brick; J. T. Brady, City Eng.	J. F. Winters, City Engineer.
Ohio	Toronto	August 4, noon.	Paving, curbing and paving, Market St., from 5th to Main St.	Charles Deeds, City Clerk.
Pennsylvania	Pittsburg	August 4, noon.	Improving of certain public roads in county.	D. C. Ault, Village Clerk.
Indiana	Martinsville	August 4, 2 P.M.	Constructing 8,064 ft. gravel road in Brown tp.	F. P. Borth, County Controller.
Indiana	Vincennes	August 4, 2 P.M.	Constructing 2,081 ft. gravel road in Vincennes twp.	B. E. Thomburg, County Auditor.
Georgia	Rome	August 4, 4 P.M.	Wood block, brick, etc. paving, 41,000 sq. yds., concrete base, 12,000 lin. ft. granite curb, 12,000 cu. yds. exc.	John T. Scott, County Auditor.
New York	Bronxville	August 4, 8 P.M.	Macadamizing Elm Rock and portion Masterton roads.	Hazlehurst & Anderson, Atl'ta, Engrs.
New York	Niagara Falls	August 4.	Paving Cleveland Ave. and 22nd St.; cost, \$50,000.	Frank Dinsmore, Village Clerk.
Ohio	Toledo	August 5, 10 A.M.	Grading, draining, macadamizing 3 miles of road.	W. D. Robbins, City Engineer.
Ohio	Carrollton	August 5, noon.	Vit. block paving, etc., 6,262 sq. yds. W. Main St.	L. B. Bailey, Chm. Co. Com.
Indiana	Greensburg	August 5, 2 P.M.	Constructing gravel roads in various townships.	Village Clerk.
Indiana	Frankfort	August 5, 2 P.M.	Constructing 17 gravel roads.	Chas. F. Cromwell, Co. Auditor.
Wisconsin	Sparta	August 5, 2 P.M.	Brick paving, 7,204 sq. yds.; grading, 1,870 yds.; cement curb and gutter, 4,888 lin. ft.; and 522 ft. headers.	Chas. F. Cromwell, County Auditor.
Pennsylvania	Waynesburg	August 5, 7:30 P.M.	Brick paving, 10,800 sq. yds.; curb, 6,200 ft.; exc., 5,320 cu. yds.	J. T. Hutson, Chm. St. Com.
Ohio	Wooster	August 5.	Paving Spink St., from North to Bowman St.	T. B. Dinsmore, Boro. Eng'r.
Iowa	Davenport	August 5.	Asphalt paving, 17,931 sq. yds.; curb and gutter, 4,340 lin. ft.; exc., 4,896 cu. yds. on Third St.	Board of Public Service.
Indiana	New Albany	August 5.	Vit. block, curb, gutter, sidewalks, Tenth St., \$7,260; curb, gutter, sidewalks, Fifteenth St., \$1,413.	Thomas Murry, City Eng'r.
Indiana	Muncie	August 5.	Constructing 2 gravel roads in Liberty township.	S. T. Mann, City Engineer.
Indiana	Bloomington	August 5.	Constructing 7 gravel roads.	Jos. E. Davis, County Auditor.
Indiana	Muncie	August 6, 10 A.M.	Constructing 6 gravel and 2 crushed stone roads.	Sam'l M. Kerr, County Auditor.
Indiana	Brazil	August 6, 11:30 A.M.	Gravel road, 10,600 ft. long; comb. gravel and stone, 7,169 ft.	Jos. E. Davis, County Auditor.
Pennsylvania	Emsworth	August 6, 5 P.M.	Cement sidewalks, 9,000 sq. ft., curbing 1,800 lin. ft.	McBride, Sur. & Eng. Co., Ltd., Borough Engineers.
Ohio	Canton	August 7, 10 A.M.	Bldg. sub-grade and macadamizing Brookville & Greenville road.	M. W. Oberlin, County Auditor.
Pennsylvania	Slatington	August 7.	Constructing 4 1/4 miles imp. hwy. in upper end Lehigh Co.	Jos. W. Hunter, St. H'way. Com. Harrisburg.
Ohio	Lockland	August 7.	Laying cement curb and gutter on Washington Ave.	C. E. Troy, Village Clerk.
Wisconsin	Chippewa Falls	August 7, 2 P.M.	Brick paving and curbing.	Ed. Vehren, Chm. Bd. Pub. Works
Indiana	Bluffton	August 7, 7:30 P.M.	Asphalt paving on concrete, Central Ave., Wm. and Smith Sts.	A. B. Botson, City engineer
Wisconsin	Oshkosh	August 8, noon.	Asphalt paving, grading, comb. curb and gutter, Jackson street.	W. A. Marden, Pres. Bd. Pub. Wks.
Tennessee	Clinton	August 8, noon.	Constructing 13 miles of pine road.	Levi Foster, Chm. County Trustees.
Ohio	Xenia	August 8, 1 P.M.	Hargrave road, imp., 21 miles long, Jeffsbn. twp.	Wm. Dodds, County Auditor.
Wisconsin	Green Bay	August 8, 10 A.M.	Grading and macadamizing State St.	John Gross, Chm. Com. Sts., B'dges.
Ohio	Jefferson	August 8, 1 P.M.	Vit. block paving and curbing No. Ridge Road.	Board of County Commissioners.
Arkansas	Van Buren	August 8, 2 P.M.	Paving 10,000 sq. yds., 4 streets, with double brick pavement on sand; remov. 4,218 cu. yds. of excavation; 420 lin. ft. castings for street crossings; 610 ft. curb and gutter.	E. L. Matlock, Sec'y Bd. Paving Com
New Jersey	Verona	August 10, 3 P.M.	Grading and laying Telford pavement on Fairview ave. in Boro.	M. Barry, Bd. Freeholders, Newark.
Ohio	Ashtabula	August 10.	Vit. block paving, curbing, grading, etc., No. Ridge road.	Ashtabula County Commissioners.
New York	Saranac Lake	August 11.	Constructing 35,000 lin. ft. concrete sidewalks, etc.	Donald F. McLeod, Village Eng.
Ohio	Columbus	August 12, 2 P.M.	Macadamizing, grading, etc., 3,285 ft.; also viaduct approach.	F. M. Sayre, County Auditor.
New Jersey	Phillipsburg	August 14, 11:30 A.M.	Bldg. Morris and New Brunswick tpks.; 6,179 and 3,966 ft. long.	J. H. Weatherford, City Eng.
Tennessee	Memphis	August 14.	Asphalt paving on concrete, 65,000 yds.; grading, 45,000 yds.	Wm. F. Black, County Clerk.
Ohio	Cleveland	August 15, 11 A.M.	Grading, draining, improving, Independence and Parma Townrd	J. Field, City Clerk.
Oklahoma	Hobart	August 15.	Paving 48,000 sq. yds. brick, asphalt, bitu. or concrete.	Edw. G. Krahmer, County Auditor.
Minnesota	St. Paul	August 17, 10 A.M.	Improving Sjostedt road, sta. 44 to sta. 61 & 45.	Lemuel Shipman, Co. Aud.
Indiana	Fowler	August 17, 11 A.M.	Constructing gravel road 13,200 ft. long on County line.	
Water Supply				
Florida	Pensacola	July 30, noon.	Furn., erecting, etc., air compressor to lift 2,000,000 gals. from 13 driven wells to reservoir, also receiver.	T. Chalkley Hatton, Cons. Eng'r.
Ohio	Newark	July 30, noon.	Furn. labor, lead and jute, excavating and laying 86,275 ft. 6, 8, 16 in. c. i. pipe, setting valves and hydrants and repaving 3,000 sq. yds. with brick.	Riggs & Sherman Co., Toledo, Engrs.
North Dakota	Jamestown	July 30.	Laying mains in Water Main Dist. No. 1.	G. E. Lyman, City Auditor.
New York	New York	July 31, 2 P.M.	Furn. and laying 72-in. steel pipe from Val. Str. to Amityville.	John H. O'Brien, Com'r W. S., G.&E.

Water Supply—Continued

Ohio.....	Rockport.....	July 31, 3 P.M.....	Laying water main in Lakota St.....	Wm. Dahm, Clk. Trus. Pub. Aff'rs.
Minnesota.....	Janesville.....	July 31, 7:30 P.M.....	Installing water works system, inc. furn. and laying 25 tons c. i. pipe, specials and hydrants; 15 h.p. gasoline engine and deep well pump; steel tower; 65,000-gal. steel tank; etc. Constructing concrete spillway at reservoir; also digging and laying 2,250 ft. 6-in. water pipe on W. 5th St.....	J. J. Flather, Minneapolis, Eng'r.
Wisconsin.....	Marshfield.....	July 31.....	Furnishing cast iron water pipe specials.....	O. L. Dorschell, Supt. Lt. & W. Co.
Dist. of Col'bia.	Washington.....	August 1, noon.....	Bldg. concrete dam across Sang. river, near W.J.W. pump sta.....	Jay J. Morrow, Eng'r Com'r.
Illinois.....	Springfield.....	August 1, 3 P.M.....	Bldg. second pipe line from Cedar river; cost, \$1,000,000.	R. H. Thompson, City Engineer.
Washington.....	Seattle.....	August 1.....	Bldg. filters, pipe gallery, conduits, etc., in O'Hara twp.....	A. B. Shepherd, Act. Dir. Pub. Wks.
Pennsylvania.....	Pittsburg.....	August 3, 10 A.M.....	Bldg. 10 new filter beds; estimate \$650,000.	A. B. Shepherd, Dir. Pub. Wks.
Pennsylvania.....	Pittsburg.....	August 3, 10 A.M.....	Lowering water pipe at this post.....	G. C. Burnell, Cons. Q. M., U. S. A.
New York.....	Fort Wood.....	August 3, 10:45 A.M.....	Constructing mains in Woodward ave. and Park Row.....	Wm. H. Evers, Eng. Co., Cleveland.
Ohio.....	Lakewood.....	August 3, 11 A.M.....	Labor, machinery, material, etc., for complete W. W. system.....	L. H. Lyle, City Clerk.
Nebraska.....	Wakoo.....	August 3, noon.....	Constructing water main 3 sts., Dist. No. 2.....	N. C. Morgan, City Auditor.
North Dakota.....	Fargo.....	August 3.....	Extending water system, inc. 1,067 tons c. i. pipe, valves, etc.	C. C. Carlisle, City Engineer.
Wyoming.....	Cheyenne.....	August 3.....	Constructing water supply system at Naval Magazine.....	Commanding Officer.
Washington.....	Bremerton.....	August 4.....	Bldg. storehouse at bridge approach to intake pier.	Elmer G. Prior, Clk. Water Com'rs.
Ohio.....	Cincinnati.....	August 7, noon.....	Constructing \$10,000 water works; J. Martz, Seward C. E.	J. Pacal, Village Clerk.
Nebraska.....	Weston.....	August 7.....	Furn. and erect. vert. triple expansion crank and flywheel engine, 20,000,000 gals., for continuous service.....	J. R. Manning, Pres. Bd. W. Com'rs.
New Jersey.....	Trenton.....	August 12, 2 P.M.....	Addition to bldg. and mech. filter plant, St. Hosp. for Insane	Dr. H. B. Meredith, Supt. St. Hosp.
Virginia.....	Danville.....	August 13, noon.....	Franchise for water works for County.....	George Trunnell, City Clerk.
Kentucky.....	Belleview.....	August 13.....	Constructing 3 miles of plain concrete conduit, 17 ft. high and 17 ft. in width inside; \$225,000 bond.....	John H. O'Brien, Com'r W.S., G. & E.
New York.....	New York.....	September 1, 11 A.M.....	Constructing water and light plant.....	W. H. Austin, Town Clerk.
Alabama.....	Russellville.....	September 1.....		

Sewerage

New York.....	Binghamton.....	July 29, 4 P.M.....	Constructing sewer in Spring Forest ave. and Spring st.....	D. C. Herrick, City Clerk.
Illinois.....	Chicago.....	July 30, 11 A.M.....	Connecting sewer at La Salle St. and Garfield Boulevard.....	John J. Hanberg, Com'r Pub. W'ks.
Ohio.....	Cleveland.....	July 30, noon.....	Bldg. portion of W. 117th St. joint sewer.....	A. R. Callow, Sec'y Bd. Pub. Serv.
Rhode Island.....	Woonsocket.....	July 30, 2 P.M.....	Bldg. 1,400 ft. 8-in. sanitary sewer, etc., 250 cu. yds. rock exc.	Frank H. Mills, City Engineer.
North Dakota.....	Jamestown.....	July 30, 6 P.M.....	Constructing 2,437 ft. sanitary sewer.....	G. E. Lyman, City Auditor.
Indiana.....	Fort Wayne.....	July 30.....	Laying vit. clay pipe sewers in Wayne St. and alley.....	Edw. J. Lennon, Chm. Bd. P. W'ks.
Iowa.....	Keokuk.....	July 30.....	Constructing 2,200 lin. ft. 8-in. tile sanitary sewer, etc.	J. Ross Robertson, City Edg'r.
Massachusetts.....	Boston.....	July 31, 2:30 P.M.....	Bldg. 1,305 ft. 69 x 72 in. concrete sewer; 1,135 ft. 72 x 48 in. brick and concrete sewer; 300 cu. yds. Portland brick ma- sonry; 3,000 cu. yds. concrete masonry in trench; 300 cu. yds. rock excavation in trench; invert of sewer 8 to 26 ft. below street surfaces; work in Brighton for So. Met. system.....	Wm. M. Brown, Ch. Eng. Met. Water and Sewer Board.
Pennsylvania.....	North Braddock.....	July 31, 3 P.M.....	Constructing sewers, etc.....	C. A. Stewart, Boro Eng'r.
New Jersey.....	Rutherford.....	July 31, 8 P.M.....	Bldg. main outlet and laterals in various streets.....	E. A. Stedman, Boro Clerk.
Florida.....	Ft. Barrancas.....	July 31.....	Furn. material and laying drain from pumping station.....	Capt. D. W. Hand, Q. M., U. S. A.
Maine.....	Bath.....	July 31.....	Bldg. 2,200 ft. pipe, 3,000 ft. rein. conc., 5,500 ft. Parmley block sewer.....	R. H. White, Sec'y St. & Sewer Com.
New York.....	Lake Placid.....	August 1, 1 P.M.....	Laying, complete, about 2½ miles of sewers.....	W. Z. Larned, 156 B'w'y, N. Y. City.
Kansas.....	Laurence.....	August 3, 5 P.M.....	Constructing 2 main sewers, 3 laterals, etc., inc. 330 ft. 10-in. 3,535 ft. 8-in. flush tanks, etc.; also paving, etc.....	F. D. Brooks, City Clerk.
Missouri.....	Webb City.....	August 3, 5 P.M.....	Constructing sewers in Sewer Dists. Nos. 32 and 33.....	W. E. Smith, City Engineer.
Pennsylvania.....	Sayre.....	August 3, 8 P.M.....	Material and labor, 2,170 ft., two Pateral lines.....	H. H. Mercereau, Boro. Clerk.
New Jersey.....	New Brunswick.....	August 3, 8 P.M.....	Constructing sewers in 4 streets.....	F. C. Schneider, City Engineer.
New York.....	Yonkers.....	August 3, 8 P.M.....	Constructing sewer in portion of Van Sice ave., 724 ft.	Jas. D. McIntyre, Sec'y Bd. C. & S.
Ohio.....	Steubenville.....	August 3.....	Constructing 2,000 ft. 30-in. brick sewer; 324 ft. 24-in. vit. pipe; 655 ft. 20-in., 450 ft. 18-in., 1,690 ft. 15-in., 3,127 ft. 12-in. vit. pipe and 2,384 ft. 6-in. house connections.....	J. N. Leech, City Engineer.
Indiana.....	Boonville.....	August 3.....	Constructing \$60,000 sewerage system.....	City Clerk.
Ohio.....	Lakewood.....	August 3.....	Furn. material and laying Woodward avenue sewers.....	B. M. Cook, Village Clerk.
Ohio.....	Greenville.....	August 3.....	Constructing So. Euclid avenue storm water drain.....	Jos. E. Katzenberger, Village Clerk.
Missouri.....	Joplin.....	August 3.....	Constructing sewers in Sewer Dists. 32nd Ave.....	N. C. Morgan, City Auditor.
North Dakota.....	Fargo.....	August 3.....	Constructing 1 ½-in. lateral sewer in 3 streets.....	Frank Dinsmore, Village Clerk.
New York.....	Bronxville.....	August 4, 8 P.M.....	Constructing several 6 and 8-in. pipe sewers.....	Wm. Darroch, Boro Clerk.
New Jersey.....	Garwood.....	August 4.....	Constructing pipe sewers; Jacob L. Bauer, Elizabeth, Eng'r.	W. B. Fawcett, Sec'y Bd. Pub. Wks.
California.....	Oakland.....	August 5, 10 A.M.....	Furn. material and bldg. exten. to storm sewer, Grove & Jones streets.....	Bird S. Coler, Boro President.
New York.....	Brooklyn.....	August 5, 11 A.M.....	Bldg. sewers in Scott Ave. from Newtown Creek north of Met. avenue to St. Nich. avenue, etc., Sec. 2; est., \$278,727.....	O. E. Comstock, City Clerk.
Alabama.....	Sheffield.....	August 5, 5 P.M.....	Laying 1,492 ft. 8-in. pipe sewer, average depth, 7 ft.....	C. L. Peckinpaugh, City Engineer.
Alabama.....	Sheffield.....	August 5, 5 P.M.....	Bldg. 1,492 ft. 8-in. pipe sewer, av. cut 7 ft.....	S. W. Kinnair, City Clerk.
Oklahoma.....	Guthrie.....	August 6, 4 P.M.....	Constructing Dist. sewers Nos. 39 and 40.....	M. E. Gustin, Village Clerk.
Ohio.....	Lebanon.....	August 7, noon.....	Bldg. 7,400 ft. 8 to 12-in. vit. tile sanitary sewers.....	W. W. Watson, City Engineer.
Nebraska.....	Fairbury.....	August 7.....	Bldg. 3,000 ft. 8-in. san. sewer, 2 flush tanks, 6 manholes.	B. P. Brown, Jr., Ordinary.
Georgia.....	Toccoa.....	August 8.....	Bldg. sewer system from Court House, inc. 2,700 ft. terra cotta pipe, 6 to 15 inches.....	E. E. Frizzell, Mayor.
Kansas.....	Larned.....	August 10, 8 P.M.....	Furn. material and laying 21,000 ft. of sewers.....	F. B. Newton, City Engineer.
Missouri.....	Carthage.....	August 10.....	Constructing sewer and laterals, etc., Sewer Dist. No. 6.....	P. L. Atherton, Chm. Sewer Com'rs.
Kentucky.....	Louisville.....	August 14, noon.....	Constructing the Broadway Contract No. 10, inc. 970 ft. 39-in., 1,480 ft. 33-in. concrete sewer in 9-ft. cut, etc.....	J. B. F. Breed, Ch. Eng'r Sew. Comrs.
Kentucky.....	Louisville.....	August 21, noon.....	Bldg. Sec. D, southern outfall sewer, Contract No. 11, rein- concrete sewer; 770 ft. of 13 ft. 9 in., 2,763 ft. of 13 ft. 6 in., 1,037 ft. 13 ft. 3 in., 1,368 ft. 13 ft. sewer; depth of cut, 26 to 42 ft.; 11,000 cu. yds. concrete masonry; 660,000 lbs. rein. steel.....	J. W. Turner, Village Eng'r.
Ohio.....	Jackson.....	September 1, 1 P.M.....	Constructing 1.4 miles sanitary sewer.....	

Public Buildings

Ohio.....	Bellaire.....	July 30, noon.....	Erecting 2 school bldgs in Pultney township.....	E. W. Nichol, Pres. Bd. Educ. of tp.
Kansas.....	Lawrence.....	July 30, noon.....	Erecting County jail and sheriff's residence.....	A. Frank Kerns, County Clerk.
Arizona.....	Florence.....	July 30, noon.....	Bldg. Terry. prison; also cells and other work for prison.....	Thornton Fitzhugh, Phoenix, Arch.
Maine.....	Portland.....	July 30, 3 P.M.....	Constructing, complete, U. S. Court House.....	James Knox Taylor, Wash., D. C.
New York.....	New York.....	July 30, 3 P.M.....	Erecting Administration Bldg. in Bronx Park.....	Henry Smith, Pres. Park Board.
Iowa.....	Burlington.....	July 30, 3 P.M.....	Bldg. \$130,000 high school; 2-story and base., 175 x 147 ft.; paving brick, Bedford stone and marble, concrete floor, etc.	D. S. Cooper, Sec'y Bd. Educ'n.
New Jersey.....	Orange.....	July 30.....	Bldg. 6-room add. to Clvld. school; also heat. plant, etc.	F. M. Plummer, Bd. Educ.
Iowa.....	Charlotte.....	July 30.....	Bldg. 2-story brick school, 38 x 41 ft., concrete floor, etc.	John Moreel & Son, Clinton, Archs.
Ohio.....	Fostoria.....	July 31, noon.....	Erecting school buildings.....	A. Thornton, Clk., Bd. Educ.
Wisconsin.....	Milwaukee.....	July 31, 3 P.M.....	Plans, etc., for detention house and juvenile court bldg.	F. O. Phelps, County Clerk.
Nebraska.....	Hebron.....	July 31.....	Bldg. 2-story, 58 x 64 ft. brick and Bedford stone school; cost, \$14,000.	W. M. Hill, Sec'y School Bd.
Washington.....	Seattle.....	August 1, noon.....	Bldg. Washtn. State bldg. at Alaska-Yukon-Pacific Exp.	Bebb & Mendel, Denny Bldg., Archs.
Iowa.....	St. Charles.....	August 1, noon.....	Erecting fire station and jail.....	P. S. Wise, Mayor.
Arkansas.....	Mena.....	August 1.....	Erecting high school building.....	M. B. Legate, Sec'y Bd. Educ'n.
Pennsylvania.....	Wilkinsburg.....	August 1.....	Complete plans for \$200,000 brick and stone high school.....	Board of Education.
Minnesota.....	St. Paul.....	August 1.....	Competitive plans for Mechanical Arts High School, 62 rooms; Architects all over country invited to submit plans.	Chas. E. Parker, Chm. Bldg. Com.
New York.....	New York.....	August 3, 11 A.M.....	Repairs, heat. plant, fire protection, etc., school bldgs.	Jas. J. Murphy, Sec'y School Bd.
Pennsylvania.....	Pittsburg.....	August 3, 11:30 A.M.....	Bldg. fire engine house; Chas. J. Rieger, Peoples' Bank Bldg., Ar.	Phillip Breitmeyer, Park Com'r.
Kansas.....	Atchison.....	August 3, noon.....	Bldg. ad. to Co. Hosp. on Co. farm; lining jail with rein. conc.	H. A. Metz, Compt. N. Y. City.
Connecticut.....	Hartford.....	August 3, noon.....	Plans for 2-story engine house from local architects.	Geo. C. Hendrickson, Bd. Educ.
Indiana.....	Rochester.....	August 3, 2 P.M.....	Building annex to County Asylum.....	W. H. Paulus, Clk. Bd. Pub. Safety.
California.....	San Fernando.....	August 3, 2 P.M.....	Complete construction of jail building.....	C. W. Handman, Bus. Mgr., Bd. Ed.
New York.....	Batavia.....	August 3, 4 P.M.....	Erecting bldg., new ceilings, etc., State Sch. for Blind.....	
Alabama.....	Bessemer.....	August 3, 8 P.M.....	Erecting high school bldg.; W. E. Benns, Architect.	
Connecticut.....	Hartford.....	August 3.....	Constructing new engine house.....	
Pennsylvania.....	Pittston.....	August 3.....	Erecting two 2-story brick schools.....	
Michigan.....	Detroit.....	August 3.....	Erecting bath house; also addition to barns, Belle Isle Park.	
New York.....	Brooklyn.....	August 3.....	Bldg. public comfort station on East St.....	
New York.....	Huntington, L. I.	August 3.....	Bldg. new Union High School; also heating, etc.....	
Ohio.....	Canton.....	August 4, noon.....	Erecting Police Dept. Bldg. and Fire Dept. Bldg.	
Ohio.....	Cincinnati.....	August 4, noon.....	Bldg. school, Linn and Clinton Sts.; also heating, etc.; school	

Public Buildings—Continued

Iowa	Oskaloosa	August 4, 2 P.M.	Bldg. addition, new heat. plant, etc., 2d ward school	L. T. Shangle, Sec'y School Bd.
Massachusetts	Medford	August 4	Bldg. 12-room grammar school; separate bids	C. M. Brewer, Mayor.
Missouri	Carthage	August 4	Erecting new school	J. E. Lang, School Board.
Texas	Beaumont	August 4	Bldg. market house with auditorium for seating 3,000	J. G. Sutton, City Secretary.
Ohio	Canton	August 5, 10 A.M.	Repairs, painting, decorating Stark Co. Court House	M. W. Oberlin, County Auditor.
Kansas	Eldorado	August 5, noon	Bldg. Court House and jail; Washburn & Son, Ottawa, Archs.	W. H. Clark, County Clerk.
Ohio	Cincinnati	August 7, noon	Bldg. store house for Water Dept. at intake pier	Elmer G. Prior, Clk., Com'rrs W. Wks
Oklahoma	Langston	August 7, noon	Plans for \$75,000 fire-proof school, Col. Agr. & Normal Inst.	J. L. Mitch, Clk. Bd. Regents, Guthrie.
Ohio	Columbus Grove	August 7	Bldg. 2-story, 12-room school, to cost \$40,000	Howard, Inscho & Merriam, Col'bus.
Ohio	Mansfield	August 7	Bldg. dome on Court House; heating plant, etc.	County Auditor.
Rhode Island	Kingston	August 8, noon	Comp. plans for dormitory, etc., R. I. Col. Agr. & Mech. Arts.	Hornd Edwards, Pres. of College.
Ohio	Canal Winchester	August 10, noon	Erecting school; Howard, Inscho and Merriam, Columbus, Archs.	W. M. Codner, Clk. Bd. Educ.
California	San Francisco	August 10, 3 P.M.	Reconstruction of and repairs to Federal Bldg.	James Knox Taylor, Wash., D. C.
Pennsylvania	Marshalsea	August 10	Conf'p. plans, etc., for \$100,000 hosp. for Pittsburgh City Farm.	Jas. P. Shaw, Pittsbg, Dir. Pub. Ch & Cor.
Texas	Houston	August 11, noon	Bldg. \$500,000 Court House, Lang & Witchell, Dallas, Archs.	Harris County Commissioners.
Indiana	Bedford	August 11, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Oklahoma	Stillwater	August 12, 2 P.M.	Plans, etc. for \$25,000 boys' dormitory and \$60,000 women's bldg.	R. E. Chandler, Okla. A. & M. Col.
South Carolina	Anderson	August 12, 3 P.M.	Constructing, complete, Federal Building.	James Knox Taylor, Wash., D. C.
South Carolina	Manning	August 12	Erecting, plumbing and heating school building.	Edwards, Walter & Parnham, At-lanta.
Ohio	Centerville	August 13, 3 P.M.	Erecting township hall; Slover Bros., Dayton, Archs.	C. McCray, Clk. Washington twp.
Iowa	Red Oak	August 15	Erecting 2-story 40 x 50 ft. library bldg.; cost, \$12,000.	Patton & Miller, 140 Dearborn St., Chicago.
Virginia	Petersburg	August 19, 3 P.M.	Extension, remodeling, etc., Federal Bldg.	James Knox Taylor, Wash., D. C.
Pennsylvania	Pittsburgh	August 20, 3 P.M.	Constructing, complete, U. S. Marine Hospital.	James Knox Taylor, Warh., D. C.
New Jersey	Keyport	August 20	Bldg. 66 x 50 ft. brick school, concrete floor; H. A. Young, Arch.	S. F. Mason, Chm. Bd. Educ.
Utah	Logan	August 24, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
California	Santa Rosa	August 27, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Arkansas	Little Rock	August 31, 3 P.M.	Constructing, complete, extension to Federal Bldg.	James Knox Taylor, Wash., D. C.
Minnesota	St. Paul	September 1, noon	Plans for mech. arts high school; 3 prizes	Dr. Christian Fry, Pres. Bd. Sch. Insp.
Ohio	Greenville	September 1, 3 P.M.	Constructing, complete, U. S. Post Office.	James Knox Taylor, Wash., D. C.
Mississippi	Charleston	September 8	Bldg. \$20,000 school; 3-story brick, 72 x 86 ft., electric light	P. J. Krouse, Meridian, Archt.
Michigan	Ann Arbor	September 22	Erecting Chem. Lab. and add. to Eng'r Bldg., Univ. Michigan.	Shirley W. Smith, Sec'y Univ. Mich.
Wisconsin	Green Bay	September 23, noon	Erecting Court House; sep. bids for plumbing, heat, etc.	C. E. Bell, N.W. bldg., Minpls., Minn.

Bridges

Ohio	Cincinnati	July 31, noon	Bridge construction at Eighth street.	John J. Wenner, Clk. Bd. Pub. Serv.
Washington	Olympia	July 31, 2 P.M.	Bldg. 100-ft. steel bridge over Kachess river, St. road No. 7	Jos. M. Snow, State H'way Com'r.
Illinois	Humboldt	August 1, 9 A.M.	Bldg. 9 farm iron bridges over drainage channel.	Town Clerk.
Pennsylvania	Centerville	August 1, 2 P.M.	Bldg. concrete bridge over Two Mile Run in Powell twp.	W. H. Farquhar, W. Brownsville.
Indiana	Terra Haute	August 1	Bldg. concrete circular arch bridge over Dr. Little Henry Creek.	Nathan G. Wallace, County Arch't.
Wisconsin	Menasha	August 1	Constructing stone arch bridge.	Ruben Thompson, Town Clerk.
Tennessee	Benton	August 3, noon	Bldg. 3 steel highway bridges; sub. of all and super of each separate; concrete, 2,000 cu. yds.; steel, 45,000 lbs.	County Court Clerk, Polk Co.
Ohio	Van Wert	August 3, noon	Mat. and labor, sub and superstructure, bridge over M and E canal, Third St., Delphos; vertical lift or bascule type.	W. H. Troup, County Auditor.
Kansas	Newton	August 3, 2 P.M.	Building bridge in Emma township.	B. O. Hagen, County Clerk.
Indiana	Delphi	August 3	Bldg. bridge over cut, 50 ft. span, grading, etc.	W. H. Bradshaw, City Engineer.
Indiana	Marion	August 4, 2 P.M.	Bldg. steel bridge, 160 ft. span, rein. concrete floor.	A. G. Stout, County Auditor.
Pennsylvania	Lancaster	August 4	Bldg. steel plate girder bridge over R. R. at W. James St.	L. Carpenter, City Engineer.
Utah	Richfield	August 5, 2 P.M.	Bldg. 26 concrete culverts, 4 to 25 sq. ft., and abutments for 10 bridges, requiring 1,000 cu. yds. concrete.	T. C. Collister, Secy. Land Com'rs.
Ohio	Eaton	August 6, noon	Bldg. sub-structures of certain bridges.	C. W. Edison, County Auditor.
Pennsylvania	Bethlehem	August 6, 3 P.M.	Bldg. rein. conc. arch bridge over Mono. Creek at Broad St., 450 ft. long, two cement walks, 8 ft. wide; 41-ft. brick roadway, 2 trolley tracks.	
Kansas	Mound City	August 6	Bldg. bridge over Marais des Cygnes river, near La Cygne.	L. Francisco, Easton, Co. Eng'r.
British Col'b'a.	No. Vancouver	August 7, 8 P.M.	Constructing 140 ft. span steel truss bridge.	J. M. Wortman, County Clerk.
Ohio	Cleveland	August 8	Constructing a bridge for County	Donald Cameron, Eng'r Dist. Counc'l
Ohio	Jefferson	August 10, 1 P.M.	Bldg. west abut. of sub., also superstructure, plate girder bridge over Rock Creek; J. S. Matson, Co. Engineer.	Wm. F. Black, County Clerk.
Missouri	Excelsior Springs	August 10	Constructing bridges; plans by B. Van de Geyen, City Eng'r.	J. C. Rodgers, Chm. Co. Com'rs.
Michigan	St. Joseph	August 12, 2 P.M.	Bldg. swing bridges and approaches over St. Jos. river, 780 ft. long, 18 ft. roadway, two 5-ft. walks.	Walter A. Crauen, City Clerk.
Texas	San Antonio	August 12	Bldg. steel bridge over San Miguel river.	Harry L. Murphy, City Clerk.
Michigan	St. Joseph	August 12	Bldg. swing bridges and approaches over St. Jos. river.	W. C. Wheeler, County Judge.
Oklahoma	Hobart	August 13, 10 A.M.	Bldg. extension to bridge between Granite & Lone Wolf.	Harry L. Murphy, City Clerk.
Georgia	Douglas	August 13, noon	Bldg. sub-structure and trestle approaches of bridge over Altamaha river, inc. 6 concrete piers, 3,000 ft. timber trestle, approach for Ga. & Fla. Ry.	C. H. Fawks, County Clerk.
Ohio	Rocky River	August 22, 11 A.M.	Bldg. concrete bridge over Rocky river; cost, \$253,620.	G. B. Hazelhurst, Ch. Eng'r.

Lighting and Electricity

Ohio	Gallipolis	July 30	Electrical equipment, Ohio Hospital for Epileptics.	A. B. Lea, Co. Eng'r, Cleveland.
New York	New York	July 31, 2:20 P.M.	Repairing two 100 k.w. engines and generators, U. S. Immigrant Station.	Wm. H. Pritchard, M.D., Sec. Hos. Bd
Ohio	Cincinnati	July 31	Rewiring, etc., electric installation, House of Refuge.	Rob't Watchorn, Com'r immigr'tn.
Montana	Townsend	August 1	Bldg. 600 h.p. electric plant on Deep Creek for lighting city and operating mines; cost, \$85,000.	John J. Wenner, Clk. Bd. Pub. Serv.
Pennsylvania	Pottstown	August 1	Lighting st. by gas or electricity, 3 or 5 yrs.; now using 96 incan. lights, 32 cp. each; 80 are lights, 1,200 cp. each.	C. H. Breidenbach, Chm. Prop. Com.
Ontario	Hamilton	August 3	Bldg. plant to light city with elec. supplied by Hy. Elec. Power Com.; 700 arc lamps and complete equipment, cost, \$200,000.	City of Hamilton.
Nebraska	Wahoo	August 4, 8 P.M.	Bldg. electric light system and water plant.	L. H. Lyle, City Clerk.
New Jersey	Cranford	August 5, 8 P.M.	Street lighting in the township; 211 incandescent, 25 c.p., and 11 arcs, 1,200 c.p.; also for increase.	James E. Warner, Township Clerk.
New York	Saratoga	August 7, 3:30 P.M.	Furn. gas, arc, incandescent or other lights for streets and public buildings for 4 year term.	Philip S. Wakeley, Village Clerk.
Wisconsin	Hartford	August 7, 7:30 P.M.	Bldg. power plant for mun. elec. light plant, inc. brick power house and chimney; 2 steam engines and 2 steam boilers or gas producer plant; 2 electric generators, act. type, with switch boards, street lamps, transformers, regulators, etc., for complete power house installation.	

New Jersey	Overbrook	August 7	Constructing power house at penitentiary for County	A. J. Hemmy, City Clerk.
Ohio	Mansfield	August 7	Bldg. power house, heating plant, etc., at Court House	Runyon & Carey, Newark, Eng'r's.
Ohio	Fremont	August 15	Constructing \$200,000 power plant for Power & Light Co.	County Auditor.
Alabama	Russellville	September 1	Constructing water and light plant.	H. Von Schon, Detroit, Mich., Eng'r.
Wisconsin	Kenosha	September 7, 8 P.M.	Electric street lighting for 5 and 10 years, from Aug. 20, 1909.	W. H. Austin, Town Clerk.
Wisconsin	Green Bay	September 23	Gas and electric fixtures, etc., new Co. Court House.	Geo. W. Harrington, City Clerk.

Miscellaneous

New York	New York	July 30, 2 P.M.	Bldg. outer trolley tracks, Blackwell's Id. bridge; also block signal for L tracks, new Williamsburg bridge.	Dept. of Bridges.
New York	New York	July 30, 2 P.M.	Furn. 100 lin. ft. 3-pipe iron fence for parks.	J. W. Stevenson, Com'r Bridges.
New York	New York	July 30, 3 P.M.	Labor and material for approach work, exterior N. Y. Public Library.	H. H. Smith, Pres. Park Bd.
New York	Rensselaer	July 30	Furnishing fire apparatus, etc.; delivery in 90 days.	Henry Smith, Pres. Park Board.
Pennsylvania	Scranton	July 31, 2 P.M.	Constructing an incinerating plant for garbage and rubbish, inc. bldg., equipment and appliances.	Board of Fire Commissioners.
Saskatchewan	Prince Albert	July 31	Furn. 4-wheel double-cylinder, also hand-haul che n. engine.	J. Benj. Dimmick, Mayor.
Ohio	Cincinnati	July 31	Bldg. retaining wall on Vine and Thill Sts., Inwood Park.	C. O. Davidson, Sec'y-Treas.
Pennsylvania	Philadelphia	August 1, 11 A.M.	Constructing pier at navy yard for Navy Dept., Wash., D. C.	John J. Wenner, Clk. Bd. Pub. Serv.
Ohio	Bellaire	August 1	Constructing a garbage crematory.	Commanding Officer, Navy Yard.
Pennsylvania	Reading	August 4, 7:30 P.M.	Furn. and del. Portland cement for Bernhart sand filters.	Board of Public Service.
New Jersey	Gloucester	August 6, 8 P.M.	Cleaning streets, gutters, inlets and manholes, sprinkling streets; collection of ashes and garbage.	Edwd. Elbert, Pres. Water Com'rs.
Pennsylvania	Scranton	August 6	Furn. 3,000 ft. or more of fire hose; new specifications.	John J. Mannion, City Clerk.
California	San Francisco	August 6	Plans, etc., for wharf and dock.	F. L. Wormser, Dir. Pub. Safety.
Illinois	Chicago	August 12, 10 A.M.	Furn. 50,000 bbls. Portland cement.	Sec'y Thorpe, of Harbor Com.
				U. S. Reclamation Service.

STREET IMPROVEMENTS

Decatur, Ala.—Through Birmingham parties Morgan County has just sold \$260,000 worth of good road bonds. The sale was consummated by Probate Judge William E. Skeggs. The bonds were sold at par value and will bear 5 per cent. annual interest. They fall due thirty years from date. Work will commence on the roads within about sixty days. The roads will be built as rapidly as possible. The work will be done under the supervision of a competent engineer and much of the hauling and other work will be done by citizens of the county.

Fort Smith, Ark.—Plans have been adopted by the Paving Commission for paving Rogers avenue, and it is probable that work will begin shortly.

Little Rock, Ark.—A meeting of property owners on West Second street, from Main street to Center street, and on Louisiana street, from West Markham street to Second street, was recently held for the purpose of discussing the paving of those streets.

San Diego, Cal.—Engineer Cooke has been directed to commence survey immediately for new boulevard, to be constructed to connect this city with Escondido.

Bridgeport, Conn.—The condition of the asphalt on Main street and especially through the business section and on State street, is such that in all probability a new pavement will have to be laid next year.

Manchester, Conn.—Residents of West Center street are advocating the macadamizing of that thoroughfare.

New London, Conn.—The Street Department is preparing for the macadamizing of Belden street.

Washington, D. C.—Orders have been given that the roadway of Seventeenth street northwest, between S and T streets, be resurfaced, at an estimated cost of \$3,000; that the carriageway on S street northwest, between Fifteenth street and New Hampshire avenue, be resurfaced, at an estimated cost of \$10,000; that the carriageway on R street northwest, between Ninth and Eleventh streets, be resurfaced at an estimated cost of \$4,000, and the carriageway on Eighth street northwest, between N and P streets, be resurfaced, at an estimated cost of \$4,300.

Des Moines, Ia.—Council has adopted resolutions providing for the paving of numerous streets, in all about 44,614 yards of asphalt and 13,097 yards brick; also the paving of Grand avenue with wooden block.

Plans and specifications have been made for paving a number of streets with asphalt, including Center drive, West Fortieth, West Thirty-fourth, Hubbell street and Kingman boulevard, from Thirty-fifth street to Polk boulevard.

Ottumwa, Ia.—J. T. Brady, City Engineer, has prepared plans for nine blocks of brick paving. Bids will be received by Charles Deering, City Clerk, until Aug. 3.

Lewiston, Ida.—The city is considering the matter of paving a number of streets with wooden blocks.

Bloomington, Ill.—The Board of Local Improvements has decided to pave South Main street.

Bruce, Ill.—Commissioners of Highway of this town have plans under way for extensive improvements to roads throughout this section.

Chicago, Ill.—Plans are being discussed for the proposed boulevard link connecting the North and South Side boulevard systems.

Delphi, Ind.—No bids were received July 6, on account of threatened litigation and injunctions, for heavy street grading, cement curb and gutter, also sidewalk and a bridge crossing over cut, making about 50-foot span; the job is jointly between county and city; the estimate on the work amounts to about \$30,000; it will be readvertised for August 3.—W. H. Bradshaw, City Engineer.

Indianapolis, Ind.—Residents of Hamilton avenue between Michigan and Tenth streets want the Board of Public Works to use brick in the paving of that thoroughfare; the Board recently passed a resolution providing for the paving of same with bitulithic.

Kokomo, Ind.—The question of a new boulevard on Courtland avenue, northward from Water street to Sycamore street, is being discussed; Mayor Arnett is in favor.

Burlington, Ia.—City Engineer J. F. Winters is preparing plans for brick paving; estimated to cost \$35,000.—Robert Kropach, City Clerk.

Des Moines County has had plans prepared for two miles of rock roads.—Daniel B. Hill, County Auditor.

Paducah, Ky.—Council has passed ordinances for grading and graveling Farley place, also an alley, and for constructing vitrified block sidewalks on First street; contracts are to be awarded by the Board of Public Works.—Maurice McIntyre, City Clerk.

New Orleans, La.—Council has been petitioned for paving Upperline street, from St.

Charles to Dryades street, with bitulithic paving.

Adams, Mass.—Plans are under way for new State highway, to be constructed on Orchard street.

Lowell, Mass.—Council has voted \$25,000 bonds for block paving in Middlesex street and \$11,500 for Hassam paving in Westford street.

Ware, Mass.—Plans are under way for improving the roads in this town and vicinity.—Address Superintendent of Streets George C. Wesson.

Worcester, Mass.—Council has in contemplation the paving of Main street.

Bangor, Me.—Plans are under way for paving or repaving a part of Main and Exchange streets.

Biddeford, Me.—It has been decided to pave Elm street with Hassam pavement, from Mason street to Mile brook.

Alpena, Mich.—Second avenue is to be paved; it is probable that the work will be started in the near future.

Houghton, Mich.—Plans are under way for improving the roads in Houghton County.—Address State Highway Commissioner Earle.

Port Huron, Mich.—Improvements are under discussion for the roads throughout Port Huron Township; the residents of Twenty-fourth street are particularly interested.

Crookston, Minn.—Arrangements are being made for improving the roads in this town and vicinity.—Secretary Moore of the 25,000 Club can be addressed.

Nevada, Mo.—Council has passed a resolution for paving a portion of Cherry street with vitrified brick.

St. Joseph, Mo.—Ordinances have been introduced in Council for paving Sixteenth street, from Mitchell avenue to Sacramento street, and Twelfth street, from Mitchell avenue to Sacramento street, with Hassam pavement, and Jule street, from Twenty-fifth to Twenty-sixth street, with asphalt.

Lincoln, Neb.—Council has adopted an ordinance creating a new paving district, to be known as Paving District No. 148.

Jersey City, N. J.—Warren street will probably be improved by grading, setting 5x16-inch concrete curb, paving gutters 36 inches wide with brick on concrete base, laying 4-foot cement walks, paving carriage-way with macadam.—Geo. T. Bouton, Clerk, Street and Water Commissioners.

Long Branch, N. J.—Council has passed ordinances for setting curbs and laying sidewalks on a number of streets.—Charles O. McFadden, Mayor.

Roselle, N. J.—The Borough Council is considering the matter of macadamizing the wings of the road in Fifth avenue and Chestnut street.

Buffalo, N. Y.—Plans are being made for repaving William street; bids will shortly be asked for the work.

Centreville, N. Y.—Better roads are needed for this town and vicinity.—Address the Town Clerk.

Fredonia, N. Y.—A petition has been presented to the Village Trustees asking for the paving of Central avenue with a new brick pavement.

Fulton, N. Y.—A meeting of the members of the Department of Public Works was recently held, at which time the matter of paving Oneida and Cayuga streets was discussed.

Kingston, N. Y.—It has been decided to pave Broadway with brick from Spring street to Albany avenue; also Main and John streets; the contract for the work will be awarded by Feb. 1.

Lyons, N. Y.—Highway Commissioner Fraser is extending the roads in this town and vicinity. It is stated that extensive improvements are planned.

Newark, N. Y.—Plans have been made for laying a brick pavement on South Main street.

Niagara Falls, N. Y.—A new boulevard is proposed for this city to connect Tonawanda, Buffalo and this city; the Niagara Frontier Park and Boulevard Association is back of the scheme and can be addressed.

Plattsburgh, N. Y.—Contract will shortly be let for the construction of a macadam roadbed on North and South Catherine street.

Poughkeepsie, N. Y.—Petitions are being circulated for the paving of Hooker avenue and South Hamilton street.

Rochester, N. Y.—The Park Board will have charge of the improvements to be made to the Seneca parkway.

Council has passed an ordinance for paving Charlotte street, from Scio street to Alexander street, and Court street, from Exchange street to South avenue; Medina block stone is favored.

Sonyea, N. Y.—Plans are under way for new improvements to be made to the highway from a point near the McNair home to the schoolhouse, a distance of a little over one mile.

Schenectady, N. Y.—The Committee on Roads and Bridges of Council has reported favorably on a petition for grading, curbing and paving Wall street, from the end of the present pavement to Union street.

Syracuse, N. Y.—The State Fair Commission is at the head of project to construct a new roadway from the fair grounds to Hiawatha avenue.

Council has adopted an ordinance for the paving of Marcellus street, from Geddes to West street, with either vitrified brick or asphalt, at a cost of \$53,000.

Cincinnati, O.—Superintendent Shipley, of the Street and Sewer Department, asks for just \$100,500 more for his Department for 1909 than was appropriated for 1908; but also suggests an extra appropriation of \$200,000 for the purpose of putting all the improved streets, especially the macadam roadways, in as perfect condition as possible.

Cleveland, O.—Work will soon be commenced on improvements to be made to road and speedway in this city.—Address President of the Council.

Fostoria, O.—J. T. Tant, City Auditor, will receive bids August 10 for \$22,000 Columbus avenue improvement bonds.

Youngstown, O.—The Township Trustees and Good Road Commissioners are ready for bids for the improvement of roads in Liberty township; the profiles necessary have been submitted by the Engineer.

Salisaw, Okla.—Council is now considering the matter of improving a number of the streets by paving.

Portland, Ore.—Another attempt will be made to lay a hard pavement on Hawthorne avenue, and it is probable that asphalt will be used. Property owners in Sixteenth street have petitioned Council for permission to improve from Washington on the south end to the Martin docks on the north; it is probable that bitulithic pavement will be used.

Binghamton, Pa.—A project is under consideration which will shortly be brought to the notice of the State Legislature for the construction of a macadam road to be built by the State and to run from this city to Baltimore.

Erie, Pa.—More paving will be done in Erie this summer than in any previous year; fully forty paving ordinances have been passed or are pending in Councils.—M. Liebel, Jr., Mayor.

Greenburg, Pa.—Ordinances to pave Oakland avenue, from Third street to Stanton street; Division street, from Otterman street to Pittsburg street, and Mt. Pleasant street, from Unity street to the borough line on the south, have passed Council.

Because of the result of the special election, when the proposition to issue \$50,000 bonds to be expended for street improvements carried, Council will advertise for bids for the paving of the following streets: Depot street, Vannear avenue, Mill street, Mt. Pleasant street, Shrum's alley, Division street and Oakland avenue.

Council has passed ordinances to grade, curb and pave Fourth street, from Main to Maple, and an alley between Main and Maple, from Fourth street to its terminus on the south.

Scottdale, Pa.—An ordinance has been passed by Town Council for issuing \$20,000 street paving bonds.

Wilkes-Barre, Pa.—The Committee on Streets has received a petition from citizens asking for the paving of North Hancock street with brick for a distance of 1,600 feet.

Park City, Tenn.—Council has decided on the streets to be improved from the \$2,500,000 bond issue, subject to some revision, with the amount for each street as follows: Washington avenue, from Mitchell street to Castle street, \$6,000; Magnolia avenue, from First Creek, including repairs on bridge, to Castle street, \$5,000; Jackson avenue, from First Creek to Castle street, including repairs on bridge, \$6,000; Vine avenue, from Thompson street to Olive street, \$1,000; Selma street and Broadway, \$2,000; Linden avenue, from Jasmin street to Myrtle street, \$900; Linden avenue, from Bertrand street to Spruce street, \$2,000; Howard avenue, from First Creek to Bertrand street, \$1,000; Fifth avenue, east, from Jasmin street to Castle street, \$5,000; Madison avenue, from Mitchell street to Spruce street, \$2,000; Virginia avenue, from Olive street to Cherry street, \$1,000; Woodbine avenue, from Spruce street to Harrison street, \$1,300; Michigan avenue, from Spruce street to Lawson street, \$1,800; Iva street, from Howard avenue to Fifth avenue, \$600; Winona street, from Jackson avenue to Fifth avenue, \$1,200; Hamilton street, from Madison avenue to Washington avenue, \$500; Monroe street, from Madison avenue to Washington avenue, \$500; Bernard street, from

Coleman avenue to Jefferson avenue, \$500; Bertrand street, from Nelson avenue to Coleman avenue, \$4,000; Cruze street, from Vine avenue to Howard avenue, \$700; Keller street, from Vine avenue to Howard avenue, \$500; Green and Kyle streets, from Linden avenue to Vine avenue, \$800; Olive street, from Magnolia avenue to Jackson avenue, \$800; McConnell street, Vine avenue to Nelson avenue, \$600; Adams street, from Vine avenue to south line of city, \$200; Spruce street, from Jackson avenue to Coleman avenue, \$2,000; Cherry street, from Woodbine avenue to city line, \$600; Chestnut street, from Washington avenue to south city line, \$3,000; Harrison street, from Nichols avenue to south city line, \$2,000; Lawson street, from Fifth avenue to Jackson avenue, \$600; Summer street, from Fifth avenue to Jackson avenue, \$200; Castle street, from Magnolia avenue to Jackson avenue, \$200.

Baumont, Tex.—At recent meeting of Council a report was read from the Board of Public Works recommending the paving of a number of streets with brick, including Hickory street, Jefferson, Main and Washington streets and Calder avenue.

Brady, Tex.—Bonds, \$20,000, have been voted for improvements to streets and roads. Address the Mayor.

Alexandria, Va.—The Board of Aldermen has appropriated \$3,700 for a vitrified brick pavement on Columbus street, between King and Cameron streets, and \$1,400 for graveling, guttering, grading and curbing Payne street, between Cameron and Queen streets.

Chase City, Va.—The Business Men's Association is interested in improvements to be made to roads throughout this section.

Richmond, Va.—Council has passed a resolution providing for an appropriation of \$9,832 for the repaving of Main street.

Battleboro, Vt.—About \$2,000 will be expended for permanent highway work in this town.—John Nichols, Town Road Commissioner.

Wellsburg, Va.—Bonds have been voted for grading, paving, sewerizing and otherwise improving streets and alleys.

Aberdeen, Wash.—Council has adopted ordinance for the permanent improvement of Heron street by paving with vitrified brick.

Seattle, Wash.—Council has passed ordinances providing for street improvements as follows: Concrete walks on Twenty-fifth avenue, \$33,100; grading North Forty-sixth street, \$21,050; asphalt paving on Fourteenth, N. E., Twenty-third and Twenty-seventh, S., avenues and W. Galen street, a total cost of \$301,650.—R. H. Thomson, City Engineer.

Wheeling, W. Va.—The work of improving North Main street by the Wheeling Traction Company will result in the laying of new brick sidewalks on that thoroughfare.

Milwaukee, Wis.—A portion of Florida street is to be paved with brick on concrete foundation.

Superior, Wis.—This city contemplates three blocks of plain macadam paving on Grand avenue and five blocks on Third street; bids are invited at once.—C. Johnson, President Board of Public Works.

SEWERAGE

Pratt City, Ala.—Election may be held this month to vote on issuing \$150,000 bonds, half of which would be expended for sewer system.—J. E. Lacey, Mayor.

Little Rock, Ark.—A new sewer district has been formed bounded by Twenty-fifth, Twenty-third, Izard and High streets.

Preliminary arrangements are being made for forming a sewer district in Binghamton Heights, better known as the Fleming addition to Little Rock.

Anaheim, Cal.—Plans are being prepared for the construction of a sewerage system to cost about \$50,000.

Coalinga, Cal.—The City Trustees are now considering the construction of a sewerage system.

Monrovia, Cal.—Messrs. Olmstead & Gileman, of Los Angeles, are preparing plans for the construction of a sewer system; they will shortly be submitted to the City Trustees.

Rio Vista, Cal.—E. N. Eager, of Fairfield, is preparing plans for the construction of a sewerage system; estimated cost, about \$15,000; bids will be asked for in about three months.—F. J. Kalber, Town Clerk.

Sacramento, Cal.—City Engineer Randle has completed plans for a sewer extension which covers that portion of city lying east and south of boundary formed by Twenty-third street, from B to O street, west on O to Nineteenth street, and south on Nineteenth to R street, and west on R street to river; probable cost about \$200,000.

Mayor White states that the State took the entire \$200,000 sewer bond issue from this city.

Watsonville, Cal.—Plans and specifications for establishing a sewer system for Quin's addition have been adopted by Council and the City Clerk has been authorized to advertise for bids.

New Britain, Conn.—The Board of Public Works has recommended the construction of sewers in the East street extension, South Stanley street, Henry street, Shuttle Meadow and A street; estimated cost, about \$5,300.

New Haven, Conn.—The matter of constructing sewers in Front and River streets is being considered by the Aldermen.

Washington, D. C.—The Commissioners ordered that the following service sewers be constructed: Sewer in G street northeast between Fourth and Fifth streets, abutting lots 79 to 84, inclusive, of square 810. Sewer along the west side of Fifth street northeast between F and G streets, abutting lots 51 to 70, inclusive, of square 810, and that the sewer ordered to be constructed in Delafield street between Arkansas and Georgia (Brightwood) avenues on September 11, 1907, be designated as service sewer.

Abingdon, Ill.—There is talk of constructing a sewerage system.—Address the Mayor.

East St. Louis, Ill.—The city will probably soon take up matter of constructing large outlet sewer.—W. J. Crocken, City Engineer.

Hooperstown, Ill.—Council is considering matter of constructing \$80,000 sewer system.

Lawrenceville, Ill.—Courtier & Harvey, Consulting Engineers, Mt. Carmel, are preparing plans and specifications for sewer system.

Ottawa, Ill.—Plans are being prepared for a bridge, to cost about \$100,000.—W. H. Irwin, Engineer; James F. Farrell, Mayor.

Paxton, Ill.—Ordinance is before Council for constructing large sewer.

Peoria, Ill.—Plans and specifications for the proposed west section of the North Peoria sewer system are being made by Charles O. Dolan, and David Roberts, of the City Engineers' Department, and will probably be completed by August 15; estimated cost of the improvement is \$234,000.—I. J. Levinson, Secretary, Board Local Improvements.

Evansville, Ind.—The Evansville Packing Plant has asked the Board of Health what plan can be adopted to render the drainage from the plant inoffensive; it is probable that septic tanks will be installed. Property owners have petitioned the Board of Public Works for the construction of a local sewer in the alley from Lafayette to Governor street, between Iowa and Delaware streets.

Mishawaka, Ind.—Plans are being prepared for the construction of a sewer system, 12 to 18-inch vitrified sewer tile and 3,100 feet of 30 and 42-inch reinforced concrete.—W. S. Moore, Engineer.

Peru, Ind.—Bids will be asked in about one month for 2,900 feet of 20-inch vitrified sewer and about 200 feet of 10-inch vitrified sewer.—William O'Hara, City Clerk.

Shelbyville, Ind.—About \$150,000 will be expended in the construction of a storm water and sanitary sewerage system; the plans of the Riggs & Sherman Co., Toledo, O., have been accepted by Council.—H. J. Clark, City Clerk.

Burlington, Ia.—City Engineer J. F. Winters is preparing preliminary plans for a brick and reinforced concrete sewer; estimated cost, \$150,000.—Robert Kropach, City Clerk.

Fort Dodge, Ia.—Charles Reynolds, City Engineer, has reported that proposed relief sewer for southeastern part of city will cost property holders about \$80 per lot.

Iowa City, Ia.—Council has taken final action on resolution for constructing sewer in Benton street and Kirkwood avenue.

Muscatine, Ia.—Council is considering establishing sewer district for Smalley avenue, Park avenue and Front street.

Sioux City, Ia.—Resolution is before Council for constructing six miles of 8-inch to 12-inch vitrified pipe sewer for the Morningside District.

Storm Lake, Ia.—Matter of constructing sewers is before Council.

Independence, Kan.—The City Clerk is calling for bids for constructing 1,120 feet of 2-ring brick sewer in South Ninth street.

Silvis, Ill.—The village has been granted permission to extend its sewer system to empty into Rock River.—H. G. Paddock, Mayor.

Dayton, Ky.—Council has adopted new plans and specifications for three trunk sewers. The plans provide for brick or concrete sewers on Main, McKinney and Vine streets, the size and other specifications to be identical with those of the former plans, with the exception of reductions in the length of the sewers, and the elimination of nearly one-half of the catchbasins. The new plans provide for 30 catchbasins and a curtailment of the sewers at the river. The estimates of the cost of the sewers are as follows: Main street, \$15,850; McKinney street, \$8,770; Vine street, \$13,177; total cost, \$37,997.

Latonia, Ky.—The construction of a sewer under Glenn avenue has been ordered by Council.

Louisville, Ky.—The Sewerage Commissioners are considering advertising for bids

upon Section D of the Southern outfall sewer, which extends west on Wilson street, from Twelfth street. The date for receiving bids has not yet been determined.—Charles P. Weaver, Secretary.

Madisonville, Ky.—Town is being surveyed preparatory to laying a sewerage system.

Ft. St. Philip, La.—All bids were rejected for constructing a sewer system here.—Arthur Cranston, Q. M., U. S. A., New Orleans.

Portland, Me.—Council has passed order for constructing sewers in various parts of the city.

Baltimore, Md.—Chief Engineer Calvin Hendrick of the Sewerage Commission has been instructed to prepare plans for the construction of a storm water sewer in the Liberia road.

Walbrook, Md.—Property owners, developing land west of this section, recently appeared before the Board of Estimate and advocated the construction of a sewerage system for that section.

Adams, Mass.—State Health Inspector Wright states that the Hoosac River, which receives the sewage of this town, is a menace to public health; the town is at present having a survey made for a sewer system.

Springfield, Mass.—Improvements are being planned for Pewowsie boulevard and extensions to York street.

Taunton, Mass.—The Board of Aldermen has petitions on file, aggregating the construction of about 6,000 feet of sewer; the Sewer Commissioners have voted to ask Council for \$15,000 with which to construct lateral sewers.

Winchendon, Mass.—Dr. F. W. Russell and others are interested in project for wider highway in this town along Central street; improvements will be made at a large cost if present plans are carried out.

Detroit, Mich.—Council has directed the Department of Public Works to advertise for proposals for construction of two lateral sewers.—J. J. Haarer, Commissioner.

Durand, Mich.—The citizens voted \$6,000 bonds for improvements to sewer system.—Geo. S. Pierson, Kalamazoo, Engineer; Fred. L. Eldridge, Village Clerk.

Grand Rapids, Mich.—Council has authorized an issue of \$116,000 of bonds for the construction of additional sewers.

Sturgis, Mich.—George S. Pierson, Consulting Engineer, Kalamazoo, has completed plans and specifications for sanitary sewer system.

Duluth, Minn.—The Board of Public Works will shortly report to the conference committee in favor of turning Brewery Creek into a main trunk sanitary sewer for the benefit of the sewer system on the upper hillside.

Eveleth, Minn.—A good roads convention was held here recently, at which it was decided to levy a special tax to raise funds to the amount of \$235,000 for better roads in this town and vicinity.—Address the Mayor.

Kenyon, Minn.—The Village Council has selected W. C. Frazer of Rochester to prepare preliminary plans for a sewer system.

Milaca, Minn.—The citizens have voted to issue \$20,000 bonds for the extension and improvement of the sewerage system.

New Prague, Minn.—Preliminary steps have been taken for building sewer system for the village.

Newton, Miss.—Bonds, \$4,500, were recently issued by the Mayor and Aldermen for putting in a sewerage system in the business section of the town.

Independence, Mo.—It is proposed to expend about \$11,504 in the improvement of the septic tank and sewer system.—Thos. Cole, City Clerk.

St. Joseph, Mo.—The city will vote Aug. 8 on issuance of \$250,000 of bonds for extension of main sewers.

Sedalia, Mo.—City Engineer Leaming has prepared plans for a sewer in Sewer District 41.—C. E. Baker, City Clerk.

Warrensburg, Mo.—The physicians of Warrensburg in a letter to the Council urge prompt action toward constructing a general sewer system in the city.

Asbury Park, N. J.—State Board of Health has extended time for installing septic disposal plant for city until June 1, 1909; Council has referred matter to a committee with power to employ engineer.

Elizabeth, N. J.—Council has received petition asking for the construction of a sewer in Jefferson avenue to North Park.

Newark, N. J.—The construction of the long projected \$12,000,000 trunk sewer from Paterson to Newark Bay to prevent the pollution of the Passaic River is practically assured by the action of the Mayors of the municipalities in the Passaic Valley sewerage district, ten of whom voted in favor of entering into a contract with the District Sewerage Commission without further delay. They represented Newark, Passaic, East Orange, Glen Ridge, Rutherford, Belleville, Kearny, Harrison, East Newark and Bloomfield.

Ridgewood, N. J.—Engineer Harder has

submitted his report to the Village Trustees on the construction of the West Side sewer system.

West New York, N. J.—Council has passed ordinance for reconstruction of sewer in Twelfth street, from Bergenline avenue, and for grading, laying bluestone flagging in sidewalks and curb, and laying Belgian blocks in gutters, 12-inch vitrified pipe sewer, etc., in Hudson avenue, from Seventeenth to Fifteenth street.

Far Rockaway, N. Y.—A meeting of the leading citizens of this place and Rockaway Beach was recently held in the office of the Sewer Department of Queens Borough at Borough Hall, Long Island City, for the purpose of taking up the matter of the alarming condition of sewers emptying into Jamaica Bay.

Fulton, N. Y.—The City Engineer has plans under way for laying sewers in Hanibal street, in West First street and in Worth street.

Gouverneur, N. Y.—The fact that the village must sooner or later construct a plant for the proper disposal of sewage, involving the expenditure of from \$75,000 to \$100,000, a matter which has been presented to the people from time to time during the past year, has again been forcibly brought to the attention of the Village Board of Trustees by a communication from the State Board of Health to Village Clerk H. R. Sturtevant.

Newark, N. Y.—All bids were rejected, same exceeding appropriation, for constructing a sewage disposal plant for the New York State Custodial Asylum.—Ben B. Chase, Secretary, Board of Managers.

Niagara Falls, N. Y.—City Engineer W. D. Robbins is preparing plans for a sewer in Niagara street, from Thirteenth to Twenty-seventh street, approximately as follows: 332 feet 40-inch and 307 feet 38-inch brick sewer, 856 feet 10-inch tile sewer, nine manholes, six catchbasins, 2,000 cubic yards rock excavation; estimated cost, \$11,646.50. Also for a sewer in Niagara street, from Twenty-seventh to Thirtieth street, approximately as follows: 240 feet 15-inch, 240 feet 12-inch and 240 feet 10-inch tile sewer, three manholes, four catchbasins; 2,550 cubic yards rock excavation; approximate cost, \$1,717; bids will be called for by the Board of Public Works.

Oneida, N. Y.—Council has adopted a resolution providing that the sewer bonds be advertised for bidders.

Perry, N. Y.—This village voted down the proposition to extend the sewer system to the lake section.

Pleasantville, N. Y.—Contract will be let for sewer work here in connection with the new orphan asylum for the Hebrew Sheltering Guardian Society of New York.

Rochester, N. Y.—Council has declared its intention to construct a sewer in Kondolf street, from a point near Child street to the sewer in the vicinity of Whitney street; also a sewer in Selve terrace from a point opposite Lot No. 24, south side, to sewer in Lake avenue.

The matter of constructing a sewer in and along the right of way of the Rochester, Syracuse and Eastern Railroad Company, from Probert street to the Winton road, also sewer in Jewell street, is being considered.

Rye, N. Y.—Everett Hill, Consulting Engineer, 156 Fifth avenue, New York City, has completed plans and will soon receive bids for sewage disposal works, pipe sewers and pumping station for the village.—Geo. L. Henderson, Clerk.

Seneca Falls, N. Y.—The matter of securing a site for erecting the sewage disposal plant is being discussed.

Syracuse, N. Y.—It has been decided to construct a 24-inch sewer in Dickerson street easterly from Granger street to Onondaga Creek.

Tonawanda, N. Y.—The town has raised \$20,000 for constructing sewers in Gastown.

Troy, N. Y.—Ordinance has been introduced providing for the construction of an 18-inch sewer in Francis avenue, between Orchard and Highland avenues.

Utica, N. Y.—Residents of Blandia street have petitioned Council for an improvement of the sewer conditions in that section of the city.

Weldon, N. C.—The city is having a survey made by W. C. Riddick, of North Carolina Agricultural College, Raleigh, for sewerage and water system, to cost \$35,000.

Cincinnati, O.—Sewer Engineer Seifert, of the City Engineer's office, has proposed to the Board of Public Service that as a health measure a more complete plan of sewerage be arranged for the western portion of Price Hill; he stated that it would be necessary for the city to acquire ground in a ravine west of Academy street, between Eighth and Delhi streets, for the construction of a storm and sanitary sewer outlet. He also suggested that the main pipes be enlarged.

Cleveland, O.—East Cleveland has appealed to Cleveland for help in caring for its sewage; plans will probably be made at once

to connect the village system with that of this city.

Dayton, O.—Council has passed ordinance authorizing the construction of three brick trunk sewers along and under Main, McKinney and Vine streets, to be of brick and concrete, and cost about \$38,000.

Hartwell, O.—The citizens have voted \$35,000 bonds for the construction of sewers.

Hubbard, O.—The village is considering installing sewers and water works.

Lowellville, O.—The State Board of Health has approved of plans for the construction of a sewerage system.

Mineral City, O.—The question of installing a sewerage system is under consideration.

Put-In-Bay, O.—Plans have been agreed upon for the proposed sewer system and for the purification of the water supply.

Steubenville, O.—A petition has been received by the Board of Public Service from the property owners on South Court street, from Adams to South street, asking for a sewer; the petition was referred to the Engineer.

City Engineer Leech has completed plans for La Belle View sewer system; work includes 2,000 feet of 42-inch sewer and 665 feet of 36-inch sewer.

Bloomington, Pa.—Council has ordered the construction of a 12-inch vitrified pipe sewer to be constructed in Lee street, between Division street and Emerson street.

Cheswick, Pa.—The Borough in a short time will submit to the State Board of Health plans for a sewer system and sewage disposal plant to cost \$12,000; Borough Engineer T. R. Kennedy has been authorized to begin work upon these plans.

Danville, Pa.—State Superintendent of Health Dixon has ordered the borough to have plans drawn for a sewage disposal plant before July 1, 1909, and to have the plant erected by July 1, 1911. The matter came up in connection with the request of the borough to construct two new sewers, which would increase the town's sewer capacity by 70 per cent. The consent was given under the conditions stated.

Dunmore, Pa.—Borough Engineer has submitted estimates of cost for proposed sewer system to drain Electric avenue; total cost will be about \$36,540.

Greensburg, Pa.—Bids will be asked for the construction of sewers on Franklin, Jack and George streets, Seventh Ward, ordinance for which was passed a month ago.

Mount Olivet, Pa.—A vote will be taken on a \$100,000 bond issue by the residents of Mount Olivet borough for a sewerage system; plans are being prepared by F. O. Wolf, Engineer of the borough; when they are completed the bond ordinance will be passed and will be submitted to the people for ratification or rejection.

Mt. Union, Pa.—Mt. Union has been granted permission by State Health Department to construct sewer system and disposal plant.—J. Frank Moore, Chief Burgess.

New Castle, Pa.—The \$12,000 worth of sewer bonds authorized by Councils will now be offered for sale. City Clerk Hugh Marquis was authorized to advertise for bids for them by Councils; the bonds are for the construction of storm sewers, mainly in the Fifth Ward.

New Kensington, Pa.—Boroughs of New Kensington and Parnassus have been directed by State Health Department to prepare for sewage disposal.

Ridgway, Pa.—The borough has been granted permit to extend its sewer system.

Schuylkill Haven, Pa.—The State Health Department has notified the owners of a number of farms in this vicinity that unless they ceased draining into the Schuylkill River prosecutions would follow; Schuylkill Haven borough authorities have also received similar notices.

Washington, Pa.—Upon recommendation of the Special Sewer Committee, the Borough Council passed a resolution authorizing the issuance of \$30,000 bonds, with which to secure funds for the completion of the work on the sewage disposal plant at Arden; extras took considerable money from the original money secured by bonds for this plant, including the installation of the water plant, and it was necessary that more money be secured.

The Street Committee was given power to act in the matter of enclosing the open sewer that extends through the Fourth Ward, originating back of the Sixth Ward. South of West Wheeling street this stream has become a nuisance; it will be necessary for the borough to enclose about 90 feet; a property owner has agreed to enclose about 80 feet the stream through his lot and the Washington E. L. & P. Co. will enclose the part running through its property; the cost will be between \$200 and \$300.

Wilkes-Barre, Pa.—B. K. Finch, City Engineer, is preparing plans for large storm water sewer on North Pennsylvania avenue.

North Augusta, S. C.—Plans are being made for underground storm drainage system.—Nisbet Wingfield, Augusta, Ga., Engineer.

Park City, Tenn.—Park City will have sewer connections with the Knoxville main sewer down First Creek, provided bonds are voted. The amount of the bond money for street improvements has been increased to \$62,500; the sewer money reduced from \$21,000 to \$15,000, and the Fire Department amount reduced \$1,500, making this \$7,500; the school money is left at the old amount of \$20,000; when Council did this the bond ordinance calling for an election on August 3 was adopted on final reading and has been signed by Mayor W. R. Johnson. Councilman Greenwood stated that S. D. Newton, City Engineer of Knoxville, had stated that the First Creek main sewer had sufficient capacity to care for sanitary sewers of Park City and that he would so recommend.

Cuero, Tex.—Council is considering installing sewers.

Houston, Tex.—The Mayor has been authorized to advertise for bids on either concrete, reinforced concrete or brick, for the proposed sewer to be constructed in Austin street, from Buffalo bayou to Preston street.

Plainview, Tex.—Election may be held to vote on issuing bonds for sewerage purposes.

San Antonio, Tex.—Council has passed an ordinance providing for a special election to be held for voting bonds for the construction of sewers in the Prospect Hill section of the city.

Ogden, Utah.—A new boulevard connecting this city with Salt Lake City is an assured fact.

Spokane, Wash.—The third addition to Manitou Park, lying between Gladstone and Fifteenth streets, has been platted by the Spokane-Washington Improvement Company, which will put in sewers and water mains and pave the streets.

Tacoma, Wash.—Council has adopted resolution for the construction of a sanitary sewer in the Tacoma Land Company's addition No. 6, South Side addition, Oakes addition, Hosmer's addition and Wapato Park addition.

Bluefield, W. Va.—Council will take up at once the question of the disposal of the west end sewage.

Guyandotte, W. Va.—The city will shortly let contract for the construction of sewer system and for paving.—A. E. Smith, Mayor.

Brodhead, Wis.—Council is taking steps to secure a sewer system.

Burlington, Wis.—Bonds, \$15,000, are to be issued for constructing sewer system.

Green Bay, Wis.—City Engineer W. W. Reed is preparing plans for 12 to 48-inch tile sewers in sundry streets.

West Allis, Wis.—Sewer plans as amended, which have been under consideration for some time past, have been accepted by Council.

Montreal, Que., Can.—Plans are under way for the construction of a large sewer along Sherbrook street.

WATER SUPPLY

Birmingham, Ala.—A movement has been started for municipal water works; it is proposed to either purchase the present plant or to build a new system.

Little Rock, Ark.—An effort will be made to have the Home Water Company extend its mains in the extreme western portion of Little Rock in order to supply water for the Pulaski Heights school building.

Pine Bluff, Ark.—The Pine Bluff Corporation has been organized under the laws of Virginia, with principal office in Richmond, the object being to establish, maintain and operate a system of water works with a reservoir of 3,000,000 capacity, at Pine Bluff.—Frank G. Bridges, President of Company.

Gridley, Cal.—The citizens have voted \$33,000 bonds for the construction of water works and an electric light plant.

San Diego, Cal.—Council has appropriated \$15,353 for enlarging and improving the University Heights water system.

San Francisco, Cal.—The Board of Public Works has directed the Secretary to procure bids for the improving the University Heights water system.

Terryville, Conn.—The work on the new reservoir of the Terryville Water Company, to be located in the Holt district, has been started.

Wallingford, Conn.—At recent meeting of the freemen of the borough it was voted to appropriate \$18,000 for securing additional water supply.

De Funik Springs, Fla.—The city wants prices at once on 3-inch, 4-inch, 6-inch and 8-inch cast iron water pipe and fittings; city will also erect tank and tower.—Mayor A. G. Campbell.

Jacksonville, Fla.—The recommendation of the Water Committee that the water main be extended on St. Johns avenue as requested in a petition from property owners as soon as the Board of Bond Trustees has the necessary funds was adopted; the recommendation of the Superintendent that a car-load of 6-inch water pipe be purchased at an estimated cost of about \$300 was adopted. The Superintendent also recommended that in view of the fact that Palmetto street is to be paved for two blocks very shortly, a 6-inch water main should be put in on that street; also that a fire hydrant be located at the intersection of Palmetto and Monroe streets, and the recommendations were adopted. The offer of A. R. Merrill to sell the city an artesian well, located on property owned by him, was referred to the Water Committee to investigate and report.

Starke, Fla.—The citizens have voted \$12,000 bonds to extend and improve the electric light plant and water works.

Augusta, Ga.—J. L. Hankinson and P. Wood are interested in a project to furnish electricity for commercial and industrial purposes in Augusta, also the construction of a power plant and dam about eight miles from Augusta; preliminary surveys and arrangements are now being made.

Robinson, Ill.—W. H. Clinton, of Paris, Trustee for the Light and Water Company, states that about \$21,000 will be expended for improvements.

Knox, Ind.—Engineer George C. Morgan, 169 Jackson boulevard, Chicago, Ill., has made plans and specifications for a system of water works for the Department of Public Works; funds are being raised now.—H. C. Wise, Clerk.

Warsaw, Ind.—Engineer George C. Morgan, 169 Jackson boulevard, Chicago, Ill., has made plans for a system of water works for the Department of Public Works; funds are now being raised.—E. E. Eckhold, Mayor.

Charlotte, Ia.—Plans have been completed for water works, to cost about \$5,000.

Cherokee, Ia.—Contract was not let for laying 1,600 feet of 4-inch cast iron water pipe; plans, etc., at office of William Shadlow, Jr., City Clerk.

Council Bluffs, Ia.—The committee of the Council which has been negotiating with the Water Works Company with the view to purchasing the plant, has reported adversely and has recommended that the city employ an engineer to go over the bid of E. A. Wickham for the purpose of concluding a contract with Wickham for the construction of municipal water works.

Earlham, Ia.—J. R. Thornton, Mayor, states that the Des Moines Bridge and Iron Company, of Des Moines, has been selected to prepare plans for water works and an electric light plant; cost, about \$17,000.—W. S. Shephard, City Clerk.

Wapello, Ia.—The citizens have voted in favor of constructing water works; estimated cost, \$15,000; bids for material and machinery have not as yet been asked.—National Company, of South Bend, Ind., Engineers.

Bonner Springs, Kan.—The residents at a special election voted \$25,000 bonds for building a municipal water works system in the town; plans and specifications for the new plant are to be prepared at once, and the people hope to have their homes piped and supplied with water before this time next year. The water to be supplied by the new plant will not be used to any extent for domestic purposes, as the people of Bonner have the very best of spring and well water. The sewer of Topeka and Lawrence empties into the Kaw River, above Bonner, and it is a serious question whether or not river water at this point would be fit for domestic use.

Linwood, Kan.—The city has voted \$40,000 bonds for the construction of an electric light plant and water works system.

Rosedale, Kan.—This place contemplates constructing water works at a cost of \$25,000. E. J. Elcholtz, Mayor.

St. Marys, Kan.—An election will be held August 11 to vote on issuing \$32,000 bonds for water works.—Burns & McDonnell, of Kansas City, Mo., Engineers.

Wichita, Kan.—Plans have been completed for the construction of a new power plant for Fairmount College, the cost of which is estimated at \$5,000.

Covington, Ky.—The Board of Water Commissioners has sent a report to Council approving the plans of George Hornung, Johnston Building, Cincinnati, O., for a duplicate pipe line to cross the Licking River at Wallace avenue, and laying a supplementary main over either the Fourth or Eleventh street bridge; the Commissioners also sent a resolution to Council asking it to enter into a contract with the Newport Commissioners for laying a supplementary main over the Eleventh street bridge, the two cities to share the cost, which was estimated at \$38,000.

Latonia, Ky.—Council has directed the City Clerk to notify the Kenton Water Works to put mains under Walnut street and under Washington.

Madisonville, Ky.—Surveys are being made for the establishment of a water system for the town.

Abington, Mass.—As a result of the investigation as to purity of water supply at Big Sandy Pond, the base of the water supply for Abington and Rockland, the State Board of Health at Boston has recommended that the water supply be derived from thirty or forty wells to be driven on shores of Big Sandy Pond; it is estimated that the expense will be about \$25,000.

Beverly, Mass.—The Board of Aldermen has passed an order for \$5,000 for the reconstruction of water pipes.

Brookfield, Mass.—The Water Commissioners have decided to buy the necessary pipe for the system in East Brookfield and to contract for laying of same.

Concord, Mass.—The Concord School Company has petitioned the Board of Sewer and Water Commissioners to furnish a supply of water to school building near Wood street.

Danvers, Mass.—The city has authorized the Town Treasurer to issue \$11,000 of bonds, the proceeds to be used for improvements and additions to the municipal electric light plant.—E. B. Nichols, Manager.

North Adams, Mass.—It is probable that in the near future the matter of installing a disposal plant in this town will be taken up.

East Jordan, Mich.—The citizens have voted bonds for the extension of the water works.—Chas. A. Hudson, Village Clerk.

Norway, Mich.—Plans have been completed for a concrete reservoir.

Pontiac, Mich.—The Board of Works has been directed to lay a 6-inch water main from East Pike to East Huron street.

Adams, Minn.—M. Tschirigi & Sons, Consulting Engineers, Dubuque, Ia., are preparing plans for extension of water works.

Brainerd, Minn.—The citizens voted \$120,000 bonds for the construction of water works.—Geo. Cadogan Morgan, Royal Insurance Building, Chicago, Ill., Engineer.

Gulfport, Miss.—M. F. Sullivan, City Engineer, is preparing plans and specifications for the construction of a concrete reservoir to cost about \$20,000; nothing definite will be done for about ninety days.

Kansas City, Mo.—The Board of Public Works has approved site on Scarritt's Point for the construction of a large reservoir.

Council has voted to appropriate \$15,000 to repair damage at Turkey Creek and Quindaro water pumping stations.

Gothenburg, Neb.—C. A. Edwards, of Kearney, is preparing plans for water works to cost \$25,000.—C. L. Williams, City Clerk.

North Platte, Neb.—Council is considering the construction of water works, to cost about \$90,000.

Sidney, Neb.—Bids will be received Aug. 1 for \$20,000 water bonds.—Leslie Newbauer, Village Clerk.

Florence, N. J.—Residents of this town are making an effort to secure the erection of a municipal water system.

New Brunswick, N. J.—The Board of Water Commissioners is considering a plan for supplying South River with water; the plan suggested is to run a single pipe line from New Brunswick's pumping station at Weston's Mills to the town of South River.

Albany, N. Y.—Bids for \$500,000 worth of bonds for the improvement of the water system and river front were opened in the office of the Comptroller; of the amount \$400,000 was awarded the German Savings Bank of New York through the Union Trust Company at 101 and accrued interest. The remainder, \$100,000, was awarded the National Commercial bank at 102½ and accrued interest.

The premium realized on the bonds amounts to \$6,080. Other bidders were Estebrook & Co., New York; St. Johnsville National Bank, Mechanics and Farmers' Bank, Albany City Savings Institution, German Savings Bank, Brooklyn, and the Union Trust Company.

Amsterdam, N. Y.—A petition is being circulated asking the Village Trustees to call an election to vote on the question of constructing municipal water works, to cost about \$75,000.

Floral Park, N. Y.—The Borough Council has decided to install a water plant and steps in this direction will be taken at an early date.

Geneva, N. Y.—Bids will be requested soon by Council for lighting the city for a term of five years.

Halcottville, N. Y.—The Halcottville Water Company, Hobart, has been incorporated to supply water to Halcottville; capital, \$5,000; incorporators, George A. Buckle, A. L. O'Connor, James R. Cowan, all of Hobart.

Lockport, N. Y.—Council has approved of the sale of \$35,000 bonds to complete the Niagara River water supply system to Langley & Lawrence of Philadelphia; the bonds bear 4½ per cent. interest; this brings the total cost of the proposition to \$585,000.

Newark, N. Y.—The Village Board is considering the matter of putting in a water gallery at the pump station of the local water company.

Pleasantville, N. Y.—Contract will be let for a water supply system for the new orphan asylum of the Hebrew Sheltering Guardian Society of New York.

Seneca Falls, N. Y.—The Seneca Falls Water Company is making plans for improving its system; larger pipe is to be put in.

Shortsville, N. Y.—A special election will shortly be called to vote on the question of establishing a water works for the town.—Address Village Board.

North Wilkesboro, N. C.—The city has voted \$30,000 bonds for the construction of a water works system; a gravity system will probably be installed.

Lamoure, N. D.—About \$16,000 will be expended in the construction of a water works system for this town.

Towner, N. D.—Bonds have been voted for a water works system for the town.

Ashtabula, O.—The Ashtabula Water Company has granted the contract for the installation of the filtration plant to the Norwood Engineering Company of Florence, Mass.; the capacity is to be 6,000,000 gallons daily.

Columbus, O.—An additional fire protection for the Mt. Vernon avenue business district and a better water supply for domestic purposes has been planned by W. C. Howiday of the Water Works Department.

Dayton, O.—The Board of Public Service has received three petitions in regard to the extension of water mains.

Hudson, O.—Plans are under way for installing a water works system; James W. Ellsworth is interested.

Lorain, O.—The big 6-inch water main on Bank street burst at a point near Overland avenue, where a sewer runs under the street.

Newark, O.—The Board of Public Service rejected all bids for the construction of an extension to the water works as irregular; new bids will be asked.

Duncan, Okla.—The city has decided to make extensions to the water works system, for which \$20,000 of bonds were recently voted.—Charles E. Murphy, Mayor.

Okemah, Okla.—The citizens have voted to issue \$8,000 of bonds to build an electric light plant in Okemah.

Pendleton, Ore.—The matter of a gravity water system is now being agitated; Mayor Murphy may be addressed.

Portland, Ore.—Complaints have been made against the inadequate water supply at Arleta.

Juniata, Pa.—The borough some time ago purchased about 450 acres of ground below Wopsononock, in Homer's Gap, and this land is now being surveyed by a corps of engineers from Altoona; it is the intention of the borough to clear off this land and make a watershed of it to supply the new reservoir that is to be erected above Juniata in a short time.

Lewistown, Pa.—The pipe line leading from the dam to the reservoir of the Denholm Water Company was recently blown up by dynamite; the dam was built to furnish water to the town of Denholm.

Reading, Pa.—The Board of Public Works received two bids for the construction of an additional unit to the filtering beds at the sewage disposal plant as follows: Oliver M. Weand, \$69,990 and S. W. Chiles, South Bethlehem, \$49,100; both bids were rejected, that of Weand because it is too high, and that of Chiles because it was accompanied by a proposal bond instead of a certified check.

Aiken, S. C.—It is probable that a pipe line will be laid from Holland Springs to this city to increase the present water supply; the cost of the work would be between \$75,000 and \$150,000.

Houston, Tex.—The Central Committee of the Consolidated Improvement Clubs has passed a resolution asking the Mayor to call a special election to vote on the issuing of bonds, \$100,000 of which will be used for water main extension.

Charlottesville, Va.—Specifications have been prepared for a reservoir, to cost about \$35,000.

Richford, Vt.—A special town meeting will be held July 22 for the purpose of seeing what action the town will take to secure a larger supply of water.

Hillyard, Wash.—The citizens have voted \$55,000 bonds for the construction of water works.

Seattle, Wash.—Plans are under way for the construction of salt water mains.—Address City Engineer Thomson.

Spokane, Wash.—J. Henry Thierman has petitioned for permission to construct and operate a water system to supply water in the East Spokane addition to Spokane.

Wellsburg, W. Va.—Bonds have been voted for improving water works and extending mains.

Sturgeon Bay, Wis.—The city will erect a municipal light plant and water works at a cost of about \$23,000, this price including the power plant only.

Lovell, Wyo.—Willard T. Lovell, of Lovell, is preparing plans for water works, to cost about \$15,000.—John F. Meldrum, City Clerk.

Arcola, Sask., Can.—The ratepayers have voted in favor of a water works system to cost \$60,000.

Oakville, Ont., Can.—The Ontario Railway and Municipal Board is reported to have authorized the town of Oakville to issue bonds to the amount of \$40,000 for water works and \$10,000 for electric lighting.

Toronto, Ont., Can.—Hazen & Whipple, New York, N. Y., have been retained to prepare plans and specifications for purification works, and as consulting engineers on their construction; an appropriation of \$750,000 has been made for the plant.

LIGHTING AND ELECTRICITY

Atkins, Ark.—The Town Council has granted a franchise for electric lights to W. F. Turner; the plant will be installed soon.

Oakland, Cal.—The Globe Construction Company is reported to have secured contract for constructing concrete power substation at East Oakland Heights for the Great Western Power Company, to cost about \$44,900.—Architects Viele, Blackwell & Buck, San Francisco.

Jasper, Fla.—The Jasper Water & Light Company has been incorporated with \$25,000 capital.—W. A. Smith, President; R. B. Blackwell, Secretary.

Macon, Ga.—Information reaching the officials of the Bibb Power Company is to the effect that the million and half in bonds issued by the local corporation for developing the water power of the Ocmulgee and other Georgia streams have been floated in New York City. President W. J. Massee, of the power company, recently left for New York City, where business transactions touching the completion of the large dam at Jackson, Ga., are under way.

Washington, Ind.—The Washington Water, Light and Power Company has incorporated to improve and reinstall machinery in plant for furnishing the city with electric light, gas light, heat and power for domestic and manufacturing purposes. Directors: James P. Goodrich, E. H. Gates, J. T. Moorman and C. R. Seaman.

Sidney, Ia.—The citizens have voted to construct electric light plant.

Sloan, Ia.—F. W. Schreiber is interested in the construction of an electric light plant.

Atchison, Kan.—About \$30,000 will be expended for remodeling the municipal electric light plant.—Fred. Giddings, City Engineer.

St. Mary's, Kan.—An election will be held August 11 to vote on issuing \$15,000 bonds for the construction of an electric light plant.—Engineers, Burns & McDonnell, of Kansas City, Mo. H. B. Mees, City Clerk.

Mansfield, La.—It is proposed to rebuild lines and add new dynamos and boilers to the municipal electric light plant.—F. M. Lawrence, Superintendent, Postoffice Box 94.

Brunswick, Me.—The Brunswick Electric Light and Power Company has purchased the water power belonging to the Androscoggin Pulp Company in Brunswick and a power station to supply Brunswick and vicinity with electricity will be constructed.

Clinton, Mass.—The citizens have voted for the municipal ownership of the local gas and electric lighting plants now owned by the Massachusetts Lighting Corporation.

Menominee, Mich.—Jacobson & De Guere, of Grand Rapids, have secured contract for plans, specifications and supervision of a 7,000-h.p. hydro-electric power plant for the Menominee & Marinette Light and Traction Company of Menominee, to be located at Grand Rapids, on the Menominee River, about eighteen miles north of Menominee. The plans call for a solid concrete dam about 500 feet long, a dike of 1,000 feet long, a reinforced concrete power house and flume, a canal on the opposite side of the river leading to the power house, about 4,000 feet long. It is not definitely decided just how many and what capacity units will be installed, but the total power will be approximately 7,000 h.p.

Albany, N. Y.—The Public Service Commission, Second District, has appointed hearings at Albany in a few days on the application of the Chateaugay Electric Light and Power Company for permission to transfer its franchises, works and system to the Chasm Power Company.

Painesville, O.—Frank E. Link, City Auditor, will receive bids August 1 for the purchase of \$6,500 4 per cent. City of Painesville electric light coupon bonds, bearing interest at the rate of 4 per cent. per annum, payable semi-annually.

Guymon, Okla.—The Guymon Electric Light and Power Company has been incorporated with a capital stock of \$40,000 for the purpose of installing an electric light, water and sewerage system here; the incorporators are J. H. Wright, R. S. Cox and others.

Seattle, Wash.—For the purpose of erecting a sub-station for the city light plant at

West Seattle, Councilman Max Wardall has introduced an ordinance in Council appropriating \$12,000; it has been recommended by the Fire and Water Committee and is now in the hands of the Finance Committee; the object in providing a sub-station is to furnish the residents of the west side of the bay with electric light for their homes. A site for the sub-station has been purchased; it is located on Walnut street; the city power wires have been strung across the bay and the work of connecting them to the new pump purchased by the West Seattle Land and Improvement Company to provide a better water supply for the suburb this summer, is now in progress.

FIRE EQUIPMENT

Bessemer, Ala.—W. F. Nolan, city, has been awarded contract for construction work on new fire house.

Fort Smith, Ark.—Architect Blaisdell is preparing plans for a new fire station for No. 3, for which \$10,000 has been appropriated.

Oakland, Cal.—Chief of the Fire Department N. A. Ball has submitted his estimate of probable expenses for the next fiscal year to City Auditor Gross and asks for the sum of \$181,908 for maintenance and the total for increased facilities for the coming year, \$167,480. Details of Chief Ball's estimate on maintenance include repairs, lights, equipment, general repairing, sundries and salaries. In his request for money for increased facilities the Chief details the expenses for new hose carts, engines and salaries for new buildings to be built within the year.

Southington, Conn.—At a recent meeting of the Board of Fire Commissioners, the question of appropriating funds for new building and apparatus was discussed.—Address Chief of the Fire Department.

Willimantic, Conn.—The city has decided to purchase 1,000 feet of hose and has asked for an appropriation for that purpose.

Averyville, Ill.—At a recent meeting of the Averyville Board, Architect Keefer was instructed to prepare plans for new Fire Department building.

Council Bluffs, Ia.—A new central fire station may be erected over Indian Creek.—Address the Mayor.

Council Bluffs, Ia.—City Engineer S. L. Etnyre is preparing plans for a new two-story fire engine house.

Ottumwa, Ia.—The city contemplates erecting a fire station on the North Side.

New Orleans, La.—A new engine house is planned for Magazine street, near Berlin street, to take the place of the one destroyed by fire recently.—Address the Fire Board.

Waterville, Me.—A site is to be purchased as soon as possible for a new fire station.—Address Fire Chief.

Brockton, Mass.—The city is planning to add to the equipment of several of the fire houses.

Haverhill, Mass.—Upper Ward 6 residents are in favor of the erection of a new fire station and site has been recommended on North avenue.—W. C. Luntt can be addressed.

New Bedford, Mass.—New plans are to be prepared by Louis E. Destremps for new engine house at the west end, to be known as No. 3; additional fire equipment is also planned.

North Andover, Mass.—It has been voted to expend \$20,000 for a new fire house, to be erected on what is known as the Tavern lot.

Belleville, N. J.—Chief Moses M. Ryno can be addressed for further information regarding two hose wagons which are being discussed for the local Fire Department.

Albany, N. Y.—The Fire Board is discussing the question of purchasing new fire apparatus to be installed at Upper Rensselaer.

Buffalo, N. Y.—The Fire Commissioners will ask the Board of Aldermen to authorize the erection of new fire houses at Broadway and Fillmore avenue and East Ferry and Kehr streets; cost, \$45,000.

The Fire Commissioners have recommended the erection of two new fire houses this summer; will cost between \$30,000 and \$40,000.

North Tonawanda, N. Y.—The Board of Fire Commissioners is having plans prepared for a joint non-interfering and successive fire alarm system for the city; bids will be called for in a few weeks.

Rensselaer, N. Y.—Plans are being prepared for a two-story brick Fire Department building in the Eighth Ward; bids will be called for by the Village Clerk in a few days.

Rochester, N. Y.—A site in the Twenty-first Ward is to be selected for a new fire house; the Mayor is interested.

Van Etten, N. Y.—At a special election recently it was voted to erect a new fire house; George Banfield, one of the leading citizens,

has offered to donate chemical engine worth \$1,500.

Barlow, N. D.—Council is planning to purchase additional fire apparatus for local Fire Department.—Address the Town Clerk.

Canton, O.—The Board of Public Safety is investigating preparatory to securing a site for a central engine house and police station after plans by W. S. Efferson.

Cincinnati, O.—The citizens of O'Byronville want a new Fire Department house to take the place of the present structure located on the Madison road, near Grandin road; petition has been sent to the Board of Public Safety.

Cleveland, O.—Councilman McKenna has introduced an ordinance in Council for \$100,000 bond issue for new fire stations; four are proposed; site on the West Side is to be secured for the proposed new fire station near Detroit avenue and Berea road.

Dayton, O.—A new fire station is planned for Truck No. 7.

Springfield, O.—The Board of Public Safety has been given authority to spend \$20,000 on the erection of a new engine house in the southern part of the city.

Steubenville, O.—A new fire engine house is planned, to cost about \$12,000.—Address Fire Chief.

Conemaugh, Pa.—The question of purchasing new hose for the Fire Department is being considered by Council.

Hooversville, Pa.—A meeting is soon to be called for the purpose of considering new fire engine and for securing better fire protection.

Philadelphia, Pa.—A site at Main and Logan streets will soon be secured for a new fire station.—Address Fire Commissioners.

Pottstown, Pa.—At a recent meeting of the Sanatoga Fire Committee the question of site for a new fire house was discussed; a committee, composed of A. C. Wismar, John M. Yerger and others, was appointed in charge.

Scranton, Pa.—All bids received June 24 for furnishing 3,000 or more feet of fire hose were rejected because, while the prices varied from 79 cents to \$1 in all but one case, the guarantee period and pressure test were alike; specifications have been prepared and new proposals will be received August 6.—F. L. Wormser, Director of Public Safety.

Wilkes-Barre, Pa.—Bonds, \$200,000, are to be issued for a new police station house and for new fire apparatus, etc.—Address Councilman Richards or Laning.

The question of selling half of the horses and hose carriages and installing modern combination gasoline trucks with 1,000 feet of water hose and chemical apparatus is being discussed.—Address Chief of the Department.

Central Falls, R. I.—A new fire wagon is to be purchased for the Fire Department; estimated cost, \$1,750.

Woodlawn, R. I.—The question of erecting a new fire station in South Woodlawn is being discussed.

Oklahoma City, Okla.—The question of a \$100,000 bond issue is proposed for equipping the Fire Department.—Address Fire Chief Kesler or the Mayor.

Park City, Tenn.—About \$7,500 of bond issue to be voted on August 3 will be expended on the Fire Department.—W. R. Johnson, Mayor.

Lockhart, Tex.—Council is planning the erection of a new fire house.—Address Clerk of the Council.

Enosburg Falls, Vt.—A site on Depot street has been purchased for a new fire station.—Address Chief of the Fire Department.

Ballard, Wash.—Improvements are to be made to fire house here, and additional fire apparatus is being secured.

Wheeling, W. Va.—Fire Chief Cline has recommended the purchase of a new auto fire truck for the Fire Department.

PUBLIC BUILDINGS

Russellville, Ala.—Bearden & Foreman, Chamberlain Building, Chattanooga, Tenn., have prepared plans for new school in Franklin County, to be two stories high, brick, and cost \$10,000.

Tuscumbia, Ala.—The County Commissioners have plans by Bearden & Foreman, Chattanooga, Tenn., for a new Court House, to be large and modern and completed about the first of next March.

Little Rock, Ark.—The city has recently secured site from Mrs. Logan H. Roots and a new annex is to be erected at the city hospital at a cost estimated at \$40,000.

Mena, Ark.—The Mena School Board has authorized the erection of a new high school, to cost about \$20,000, to be brick, two stories, and cost \$20,000.

Pasadena, Cal.—Norman F. Marsh is preparing plans for new Grant school, to be erected by the Board of Education, to cost \$30,000.

Redding Cal.—Roberts Brothers & Co., of

Oakland, have contract for Shasta County new Hall of Records; to be modern construction and cost over \$46,000.

San Francisco, Cal.—Plans are under discussion for restoring the City Hall; a special committee, composed of City Architect Tharp and others, has been appointed to make preliminary arrangements.

San Quentin, Cal.—State Architect Geo. C. Sellon, of Sacramento, is preparing plans for improvements ordered by the State Board of Prison Directors at the San Quentin penitentiary; material alone for the improvements will cost \$350,000.

Tampa, Fla.—At a recent meeting of Council plans were discussed for new city prison.

Cedartown, Ga.—Fred. Wagener & Son, 272 Gordon street, Atlanta, Ga., prepared plans for new Folk County Jail.

Macon, Ga.—The Board of Education will recommend the erection of a new high school, to cost about \$50,000.—T. D. Tinsley, President.

Calo, Ill.—Plans for the erection of a new high school on Walnut street have been completed; will be brick and modern.—Address the Board of Education.

Hillsboro, Ill.—A. B. Frankel, East St. Louis, has been selected to draw plans for a two-story jail and Sheriff's residence, at Hillsboro, for Montgomery County.

Peoria, Ill.—Plans are under way for repairing the village Hall at South Peoria.

Fort Branch, Ind.—Harris & Sheppard, 123 Fourth street, Evansville, have prepared plans for new twelve-room school, to cost about \$30,000.

Ames, Ia.—Architects Proudfit and Bird, Des Moines, have prepared plans for a three-story gymnasium and armory, to cost \$150,000.

Glenwood, Ia.—Bonds, \$75,000, have been issued for the erection of a new Court House in Mills County.—Address County Clerk.

Keokuk, Ia.—Citizens have voted \$35,000 bonds for a new school.—Address the Board of Education.

Malvern, Ia.—A new Court House is to be erected; \$75,000 bonds are to be issued for the purpose and work commenced as soon as possible.

Mt. Pleasant, Ia.—The Board of Education contemplates erecting a brick and stone high school building; architect not selected.

Ottumwa, Ia.—Wapello County contemplates remodeling or building a new jail.

Rock Valley, Ia.—Bids are being received by the Town Council for a new one-story brick City Hall, and a new jail, to be 31x60 feet in dimensions.

St. Charles, Ia.—Bids are to be received by Council for the erection of a new jail and fire station, according to plans on file with the Town Clerk.—P. S. Wise, Mayor.

Salina, Kan.—Contracts are to be awarded for a new City Hall.—Address Mayor.

Rumford Falls, Me.—Sites are being investigated preparatory to securing a suitable one for a new town building.—Address the Town Clerk or Mayor.

Elkton, Md.—Arrangements are being made for new Court House here; Commission in charge is in favor of site at North and High streets.

Grafton, Mass.—Fuller & Delano Co., 452 Main street, Worcester, has completed plans for two-story building, 50x125 feet, at the Grafton Colony for the Insane; cost, about \$50,000.

Lynn, Mass.—A committee of the Board of Education has selected a site for the erection of a new school, between Western avenue and Hood street, West Lynn.—Address Mr. Nelson, President of the Board of Education.

Springfield, Mass.—Plans are being considered for seven new municipal buildings.—Address the City Clerk.

Battle Creek, Mich.—Plans are under way for a new and modern City Hall; a new building, to cost about \$250,000, is planned; site not yet secured.

Deer River, Minn.—Fred. W. Hollister has contract for a new school, to cost about \$35,000.

Luverne, Minn.—Council will receive bids August 4 for \$5,000 bonds for a new City Hall.—E. C. Schwartz, City Recorder.

Clayton, Mo.—Architect J. Hal. Lynch, St. Louis, is preparing plans for a two-story and basement \$25,000 high school building for the Board of Education.—Richard Stephens, President.

Trenton, Mo.—Supervising Architect Jas. Knox Taylor, Treasury Department, Washington, D. C., will soon prepare plans for the U. S. Post Office building; it will be built of stone and cost \$75,000.

Deshier, Neb.—Geo. A. Berlinghof, 129 Burr Block, Lincoln, has prepared plans for two-story school, to cost \$12,000.

Chatham, N. J.—Architects Balch & Moatz, New York City, will prepare plans for a \$50,000 public school building for the Board of Education.—Geo. H. Kirkpatrick, President, Chatham.

Roselle Park, N. J.—The School Board will soon award contracts for a new school

to be erected near Grant street to be modern construction and cost about \$70,000.

Buffalo, N. Y.—Plans have been completed and bids will soon be advertised for improvements to the school at Main street and Huntington avenue, suitable for the new Fourteenth Precinct police station.—F. G. Ward, Commissioner of Public Works.

Ithaca, N. Y.—The Board of Supervisors, Orlando White, Chairman Jail Committee, will soon retain an architect to prepare plans for remodeling the county jail.

Lockport, N. Y.—Plans are being prepared for a memorial annex to the City Hospital, \$10,000; bids will soon be called for by the Board of Public Works.

Peekskill, N. Y.—At a special election the electors of Drum Hill district voted to appropriate \$125,000 for the erection of a new school.

Portchester, N. Y.—Messrs. Raban & Johnston may be able to give further information regarding a new City Hall which is now being discussed.

Rochester, N. Y.—Architects Charles F. Crandall & John E. Strobel have been retained by the Board of Supervisors of Monroe County to prepare plans for an addition to the County Jail; also for an automatic refrigerating plant for the County Morgue.

Syracuse, N. Y.—A. Fussell and Melvin King, of 601 Snow Building, are preparing plans for remodeling the old county building at a cost of \$100,000 to be used by the Board of Education and Police Departments.

Yonkers, N. Y.—Architect George S. Cowles, 8 Getty square, has been retained to prepare plans for a two-story and basement press brick and stone-trimmed public bathhouse, at corner Yonkers avenue and Oak street; cost, \$40,000.

Cleveland, O.—The Board of Education is receiving bids for a new school on Columbia avenue, N. E., to contain twenty rooms and to cost about \$80,000.

Guernsey, O.—A new school is to be erected on East Steubenville avenue, to be brick and modern and cost about \$65,000.

Toledo, O.—Supervising Architect James Knox Taylor, Treasury Department, Washington, D. C., is completing plans for a one-story sandstone U. S. Post Office building, 227x149 feet, at Thirteenth and Madison streets; cost, \$550,000.

Duncan, Okla.—The city is planning a new City Hall, to cost about \$6,000.—Chas. E. Murphy, Mayor.

Miami, Okla.—The city has voted in favor of issuance of bonds for a new City Hall.—Address the Mayor.

Purcell, Okla.—Bonds, \$62,000, have been voted for a new City Hall.—M. S. Robertson, City Clerk.

Cardington, Pa.—Architect Henry L. Reinhold, Philadelphia, has been selected to prepare plans for a three-story \$4,000 school building for the Board of Education of Upper Darby township, care William Watkins.

New Brighton, Pa.—The W. G. Wilkins Company, Pittsburg architects, have completed plans for the two-story and basement armory, 50x115 feet, to be erected at New Brighton, for use by Company B, Tenth Regiment, N. G. P.; two sets of drawings have been prepared, and the choice of the building to be erected will be made by the State Armory Board; the building will provide a swimming pool, gymnasium and bowling alleys and other features, in addition to the drill hall and officers' rooms and will cost about \$25,000.

New Castle, Pa.—The Board of School Controllers rejected all bids for the erection of a fireproof brick and terra cotta school building and for the complete installation of electric work, plumbing system and heating and ventilating system.—W. J. Chain, Secretary; W. G. Eckles, Architect.

Pittsburg, Pa.—\$18,000 has been appropriated for remodeling building on the north side for a new police station.—Address Superintendent S. A. Dies of the Bureau of Building Inspection.

Bristol, R. I.—A committee has been appointed to take charge of repairs and improvements to the Town Hall.—Address the Town Clerk.

Bristol, Tenn.—A new Court House is planned, to be of modern construction and cost about \$60,000; bonds are to be issued for the purpose.

Beaumont, Tex.—Council has adopted plans for a new market house with auditorium, to have a seating capacity of 3,000.—J. G. Sutton, City Secretary.

Sherman, Tex.—Plans have been approved for new addition to the city jail after plans by Architect Eckland.

Ogden, Utah.—By a majority of 174 votes, the proposition to bond the city for \$75,000 to erect a new high school building was upheld at the polls.

Norfolk, Va.—The question of a new City Hall is still being discussed here; Mayor J. G. Riddick is in favor of large and modern building.

Wise, Va.—Architects Holmboe & Lafferty,

are preparing plans for a \$20,000 two-story, twelve-room high school building for the Board of Education.—Dr. M. H. Miles, President.

Seattle, Wash.—Additional funds are needed for the proposed new municipal building.—F. W. Grant, Superintendent of Buildings.

The Library Board has called for competitive plans from local architects for three branch library buildings, to cost \$35,000 each; John Galen Howard, of the University of California, and of the Alaska-Yukon Pacific Exposition, is Advisory Architect.

Martinsburg, W. Va.—Architects Frank P. Milburn & Co., Washington, have been selected to prepare plans for a Court House.

Milwaukee, Wis.—Architects Brust & Philip are preparing plans for a two-story public library and natatorium for the Board of Public Works; cost, \$47,000.

Neenah, Wis.—Through the benevolence of Charles Clark, funds have been donated for a new city hospital, to cost about \$75,000.

Racine, Wis.—The Park Board rejected all bids, same being too high, for the erection of a field house at Horlick Park.—Guilbert & Funston, Architects.

ELECTRIC RAILWAYS

San Diego, Cal.—Point Loma Railroad Company has been organized with \$250,000 capital stock to take over the franchises and right of way of the Point Loma Electric Railway Company. The latter company was organized about a year ago for the purpose of building a railroad connecting with the San Diego Electric Ry. Co.'s lines and extending along Point Loma to Roseville and Ocean Beach. It is proposed to construct about twenty miles of road, all of which has been graded. Contracts for the remainder of the work are to be let soon, it is said. Those interested are D. C. Collier, Harry Alexander, Sam Ferry Smith, George D. Easton and C. O. Reinbold.

Redondo, Cal.—The Redondo Railroad is planning to widen its tracks to standard gauge.

New Haven, Conn.—The New York, New Haven and Hartford Railroad Company has announced that it will expend \$1,000,000 on the construction of three new trolley lines. The contracts are to be let at once and work will be begun on all three lines in the fall. One of these lines is to be run from Hartford to Middletown, another from Hartford to Boonfield and the third from Willimantic to South Coventry. The expenditure on these roads will be the first that the New York, New Haven and Hartford road has made since the financial flurry of last fall, when the company began a policy of retrenchment.

Washington, D. C.—Control of the Washington, Arlington and Falls Church Railway has been taken out of the hands of receivers and has passed to new interests, represented by R. A. Chester, formerly vice-president of the Commercial National Bank. The new owners are closely allied with those in control of the Washington, Alexandria and Mount Vernon Railway, and it is expected that the two systems will be operated on the community of interests plan. A reorganization was perfected yesterday after the court ordered the vacating of the receivership. Mr. Chester was elected president and J. W. Rich secretary and treasurer; they are now in charge of the road. Improvements are to be made.

Atlanta, Ga.—The Atlanta Northeastern Railroad Company has been organized and proposes the construction of a forty-mile interurban line from Atlanta through the Counties of Fulton, Cobb, Milton and Forsyth. The town of Cumming will form the Forsyth County terminus. Those interested include T. F. Martin and J. L. Murphy of Atlanta; J. I. Teasley, W. A. Lummus and J. P. Brooke, of Alpharetta; J. O. Crowley and C. C. Foster, of Roswell; C. L. Harris and W. R. Ottwell, of Cumming, and F. C. Tate of Jasper.

Hawthorne, Ill.—The construction of an electric interurban from Hawthorne to Dimick, La Salle County, is under consideration.—M. B. Gearon, 79 Dearborn street, Chicago, is interested.

Colfax, Ia.—James P. Donahue has been granted franchise to construct electric railway to connect city with his hotel property a mile east of the town.

Boston, Mass.—Stockholders of Boston and Worcester Street Railway Company held special meeting to authorize an issue of \$600,000 of notes. Of the entire issue of \$600,000 one-half will be put out at present for the purpose of paying for the extension of the line into Natick and for double tracking the main line from Southboro to the South Framingham Railroad station, and also for new equipment and car houses.

Monroe, Mich.—Henry Everett, of the Everett-Moore Electric Railway Syndicate, Toledo, O., has been granted franchise here

for an extension of the Toledo, Ottawa Beach and Northern line into Monroe. It is proposed to extend the line, which now runs as far as Toledo Beach, fifteen miles north of Toledo, to Monroe.

Benson Mines, N. Y.—Application has been made to State Public Service Commission by the Little River Railroad Company for permission to construct an eight-mile lumber road from Benson Mines, St. Lawrence County, to McConnell.

Weaverville, N. C.—Weaverville Electric Company is to build four miles of electric railway from Newbridge station to Weaverville.—B. M. Lee, Asheville, Engineer.

Coshcocton, O.—Surveys are to be made for an electric railway from New Philadelphia, O., to Coshcocton and Newark. Colonel F. O. Richards, M. Siebold, A. W. Reiser and F. G. Kuenzli, all of New Philadelphia, O., are interested.

Astoria, Ore.—Practically all of the \$10,000 capital stock of the Oregon Coast Railway Company, the company that is being formed to secure rights of way and make surveys for the proposed electric railroad to Seaside and Tillamook, has been subscribed.

New Castle, Pa.—New Castle, Butler and Harmony Street Railway Company is reported to be planning to construct a line between this city and Conneaut Lake, and with that end in view is said to be negotiating for the purchase of the Sharpsville Railroad, which would form a link in the proposed extension.

Nashville, Tenn.—Gallatin Pike Railway Company, with capital stock of \$25,000, has been chartered and proposes the construction of a railroad past the Gallatin pike to Maplewood lane.—E. B. Rucker, C. H. Gillock and P. A. Shelton are interested.

BRIDGES

Little Rock, Ark.—The Little Rock and Pine Bluff Traction Company proposes to erect bridge over Arkansas River at Bell's Ferry.—W. H. Waugh, Chief Engineer.

Phoenix, Ariz.—The construction of a bridge over Salt River, at the foot of Center street, is proposed.

Weaverville, Col.—The Supervisors of Trinity County have voted to build a suspension bridge over Trinity River at Junction City, to cost \$3,000.

Hartford, Conn.—The County Commissioners will have to expend \$10,000 to \$12,000 for repairing bridge at Windsor Locks and Warehouse Point.

Tampa, Fla.—The Council has passed ordinance for construction of bridge at foot of Garcia avenue.

Dixon, Ill.—The county proposes to erect bridge on south line of East Grove township.—John Trostle, Chairman, County Supervisors.

Ottawa, Ill.—Council has voted to build a bridge over the Illinois River, to cost \$90,000.—J. M. Farrell, Mayor.

Logansport, Ind.—The County Council has appropriated \$2,500 for repair of old covered bridge over the Wabash River, near Georgetown.

Sioux City, Ia.—Plans have been prepared by G. Y. Skeels, City Engineer, for a reinforced concrete viaduct to be erected over the railroad tracks at Wall street, at a cost of about \$180,000.

Covington, Ky.—Ordinance is before Council directing railroad companies to erect a viaduct over their tracks at Willow street.

Leavenworth, Kan.—H. C. Perkins, Consulting Engineer, is preparing plans for the construction of fifteen small bridges and culverts for the county.—J. W. Niehouse, County Clerk.

Tampa, Fla.—Mayor Frank L. Wing has vetoed the ordinance passed by Council granting a franchise to the Tampa-Sulphur Springs Traction Company to construct a bridge across the Hillsborough River at Michigan avenue; the Mayor said that he had carefully looked over the provisions of the ordinance and had found that there was no calculation made in it for a street leading up to the bridge or a walk for pedestrians, and while these were doubtless contemplated by the company, the ordinance ought to clearly provide for them, so that there could be no future controversy over the matter. The members of Council appear to be convinced of the wisdom of the Mayor's veto, and a new ordinance will be prepared for passage.

Aurora, Ill.—New bridges to cost \$70,000 are proposed for Fox street.

Marshall, Mich.—Plans and specifications for bridge to be erected on South Marshall avenue have been received by the Council.

St. Joseph, Mich.—The Bridge Committee will receive sealed proposals August 12 for the construction of a swing bridge and approaches thereto over the St. Joseph River.—Address City Clerk Harry L. Murphy.

Duluth, Minn.—The city will build a foot bridge at Third street at a cost of \$15,000.

Marysville, Mo.—An election will be held

August 18 to vote on issuance of \$75,000 of bonds for bridge improvements.

Missoula, Mo.—Election was held July 18 to vote on constructing bridge across Higgins avenue; the taxpayers favor a \$125,000 structure.

Lincoln, Neb.—Six steel bridges and twenty wooden bridges belonging to the county have been damaged by floods to extent of \$10,000.

Ithaca, N. Y.—The work of improving the Cayuga inlet at entrance to Cayuga Lake and through the city requires the construction of two bridges.

Westfield, N. Y.—Consulting Engineers Boller and Hodge, 1 Nassau street, New York City, are completing plans and bids will be called for in about one week for concrete abutment and steel viaduct, double track, 1,400 feet long, on company's line near Westfield; former bids on reinforced concrete were rejected and bids will now be received on steel construction; bids will be received by the company's engineer, C. A. Alderman, care Western New York Construction Company, 530 Elicott Square Building, Buffalo.

Chickasha, Okla.—The county will construct nineteen steel and concrete bridges, principally over the Washita River; specifications have been furnished by E. E. Colby, City Engineer.

Pawnee, Okla.—Pawnee and Osage Counties are to build a steel bridge over Arkansas River, to cost about \$20,000.

Bethlehem, Pa.—The Commissioners of Northampton County, at Easton, and of Lehigh County, at Allentown, have approved plans for the construction of the bridge to be constructed across the Monocacy River at Broad street, Bethlehem, and bids for construction will be asked at once and are to be submitted on two sets of plans, one the Luten system, prepared by Prof. Luten, of the National Bridge Company, of Indianapolis, Ind., and the other prepared by R. S. Rathbun, Engineer, of the Commissioners of Lehigh County, Allentown. The bridge is to be 455 feet long, 40-foot roadway of brick and 10-foot sidewalks of cement, to consist of five arches, two of 75 feet, two of 90 feet and one 100 feet; estimated cost, between \$150,000 and \$200,000.

Harrisburg, Pa.—Ordinance is before Council for erection of a reinforced concrete bridge over the Reading Railway at Seventeenth street; M. B. Cowden, City Engineer, estimates the cost at \$15,000 to \$23,000.

New Castle, Pa.—At a cost of about \$5,000 the county will this summer erect a new bridge over the Big Run at South Jefferson street, to replace the present structure, which is considered dangerous; it will have a width of 50 feet and will be 60 feet long.

Sioux City, S. D.—The Council Committee, Samuel Hurst, Chairman, is considering construction of a steel bridge over the Big Sioux River at Eighth street; estimated cost, \$10,000.

Weatherford, Tex.—The city has voted \$7,000 of bonds to rebuild the bridge on Main street, and for the construction of two new bridges.

MISCELLANEOUS

Kelvin, Ariz.—A new reduction plant is planned in the fall in the Ray district.

Fresno, Cal.—Improvements are wanted for the city parks; Park Commissioners Chas. A. Chambers, and others have recommended an appropriation for this purpose.

San Jose, Cal.—A new garbage disposal plant is badly needed; address Dr. C. H. Walter.

New Haven, Conn.—Plans are under discussion for the erection of a large new and modern garbage disposal plant.—Address Mayor.

Indianapolis, Ind.—The Park Board has purchased property north of Fall Creek for the proposed improvements to be made.

Terre Haute, Ind.—Council has authorized an issue of \$25,000 bonds for the construction of a garbage crematory.

Lexington, Ky.—The Fayette House Telephone Company, the only bidder, has been awarded the telephone franchise, which supplants the one formerly held by the same company, the city receiving \$11,460.80, of which \$6,660.80 is to be paid in money and \$4,800 in telephone rents; the franchise is for twenty years, and not exclusive, as all franchises in Kentucky must be.—John Strain, Mayor; George S. Shanklin, President, Fayette Home Telephone Company.

Louisville, Ky.—Plans are under way for a large and modern new park in the heart of the city.

Cadillac, Mich.—The city is planning a new park, to be one of the prettiest in the State.

Joplin, Mo.—At a recent meeting of the Park Association the question of improvements and enlargements to the park was discussed.

St. Louis, Mo.—Comptroller Player is interested in bond issue of \$1,000,000 proposed for new park near Whittier street and Finney avenue.

Bellefonte, N. J.—A site is to be secured as soon as possible for a new park.

Buffalo, N. Y.—Formal application has been made for another park for the east side.

Newburgh, N. Y.—A special election was held recently to vote \$20,000 bonds for the purchase of the Townsend tract at Robinson avenue and Third street, for new park and public playground.

Syracuse, N. Y.—Landscape Architect Geo. E. Kesler, Kansas City, Mo., has been retained by the City of Syracuse to prepare plans for various city playgrounds and other park improvement work.—Jas. W. Pennock, President Park Commission.

Yonkers, N. Y.—Mayor Warren has vetoed the resolution calling for a \$40,000 appropriation for the Fifth Ward bath; he contends that \$40,000 is too much and declares that the other two baths cost but \$25,000.

Bellair, O.—The Board of Public Service, B. E. Crow, Clerk, is contemplating erection of a garbage disposal plant and wishes to get into communication with contractors for this class of work.

Cincinnati, O.—A much larger appropriation will also be required for the park system for 1909, since that has been greatly extended within the past year, and there are many plans to be worked out for future extension.

Springfield, O.—A special election is to be held this fall to vote on a new park for the city; the Commercial Club is interested.

Youngstown, O.—The ordinance which authorizes the Board of Health to receive bids for the collection of garbage and which gives the collection work into the charge of the Board was passed; the ordinance provides that the payment of the cost of the collection shall be borne by a tax levy; stiff penalties are provided in the ordinance to keep garbage free of tin cans, bottles and other refuse of a like nature.

Tulsa, Okla.—A new crematory is badly needed for this city.

Beaver Falls, Pa.—The ordinance providing for the erection of a garbage disposal plant for Beaver Falls and College Hill passed second and final reading in Council without discussion; an ordinance to acquire ground for a garbage plant passed first reading.

Greensburg, Pa.—The "white wing" system of street cleaning, at present presided over by ex-High Constable John Wilhart, will be extended, as Council decided to purchase three additional hand carts; upon the recommendation of the Street Committee Council decided to build a stable on the borough lot on Euclid avenue, south of Fourth; the salary of Street Commissioner Fry was raised from \$70 to \$75 a month.

Harrisburg, Pa.—Plans are under way for extending the Capitol Park; City Engineer Cowden can be addressed.

Philadelphia, Pa.—It has been announced by Mayor Reyburn that arrangements will soon be made to float the \$10,000,000 permanent loan authorized by the voters of that city last fall. The Comptroller has been instructed to have the necessary papers prepared, and it is expected that the sale of the bonds can be held by September. In the \$10,000,000 loan are included \$2,50,000 for new school buildings, \$1,000,000 for the parkway, \$50,000 for high pressure fire service, \$500,000 for police and fire station, \$500,000 for League Island Park, \$150,000 for park improvements, \$300,000 for a house of detention, \$800,000 for filtration service, \$600,000 for bridges, \$1,100,000 for sewers, \$1,000,000 for mandamuses, \$1,250,000 for boulevards, streets, etc.

Pittsburg, Pa.—Funds have been appropriated for the erection of a new plant on the North Side for the disposal of garbage.

Reading, Pa.—The Park Commissioners recently held a meeting, when plans were discussed for new park.—Address Mayor Rick.

Scranton, Pa.—Bids were opened by Mayor Dimmick for three bond issues recently authorized by Councils. There is an issue of \$100,000 for a garbage plant, \$36,000 for new fire house, and \$25,000 for improving street intersections. Three bidders competed for the bonds, the Scranton Savings Bank, Brooks & Co., and M. W. Halsey, of New York. The latter firm were the highest bidders, as follows: For \$100,000 garbage issue they bid \$100,041; for the \$36,000 fire house issue they bid \$100,037; for the improvement issue they bid \$100,041.

Austin, Tex.—A. E. Cuneo and C. W. Moore, Aldermen, are investigating preparatory to erecting a large new garbage disposal plant.

Waco, Tex.—Plans are under way for a new park.

BIDS RECEIVED

Bessemer, Ala.—W. F. Nolan, city, submitted low bid for the extension of the storm sewer system.

East Lake Station (Birmingham Postoffice), Ala.—The city has awarded the contract to C. M. Burkhalter & Co., of Birmingham, for the construction of the sewerage system at \$5,120.

Oakland, Cal.—Studebaker Brothers Mfg. Company has been awarded a contract by the Board of Public Works for twenty sprinkling carts at a total cost of \$6,550, thereby saving the city nearly \$2,000 through the rejection of bids of several weeks ago; of the number purchased there were six of 600-gallon capacity steel tanks at \$310 each; thirteen of 550-gallon capacity steel tanks at \$330 each, and one of 1,000-gallon capacity wooden tank at \$400. There were two other bidders, the A. L. Young Machinery Company and the Henshaw-Buikley Company, but the bid of the Studebaker Wagon Company was accepted, as they were the lowest for all three sizes of wagons. Several weeks ago the Board advertised for bids and five firms responded. After an investigation of the carts offered the Board rejected all the bids because the prices were too high.

Sacramento, Cal.—Darbey Laydon, San Francisco, has been awarded the contract by the Board of Supervisors for the bridge over the American River at Mormon Island, to be constructed for Sacramento and El Dorado Counties, at \$20,995.

San Francisco, Cal.—Eddie Graney will no longer enjoy the contract for shoeing the San Francisco Fire Department's horses; he has had the work for years, but the Fire Commissioners recently awarded the contract to Biggs & McCloskey and M. J. O'Rourke, who, under the terms of the award, will divide the work.

Hartford, Conn.—Only one bid for the paving of Ford street, from Asylum to Pearl streets, was submitted to the Board of Contract and Supply, that of the Southern New England Paving Company, at \$2.25 per square yard for asphalt and \$6.90 per cubic yard for cement in excess of the 4 inches required under the contract; the bid was referred to the Board of Street Commissioners.

New Britain, Conn.—The Board of Water Commissioners opened bids for laying 8 miles of water pipe; Falvey & Kelley, Dorchester, Mass., were the lowest bidders, at \$25,003.20, for Section 2, and Long, Little & Co., Leominster, Mass., \$24,999.50, for Section 3.—H. D. Humphrey, Chairman.

Washington, D. C.—Colburn Bros. have the contract for laying cement sidewalks in the District of Columbia during the fiscal year ending June 30, 1909.

James A. Coyle has the contract for constructing the Fourth street relief sewer, and the R. J. Bell Construction Company has the contract for the Delafield street and Iwo avenue sewers.

H. C. Kilner, Baltimore, Md., has the contract, at \$18,732.31, for constructing roads and curbing, at Washington Barracks, and W. B. Bradley & Co., Richmond, Va., have the contract, at \$2,995.60, for walks and stepping-stone.

Ft. Dade, Fla.—Davis & Cassidy, Edgemont, Fla., were low bidders, at \$2.53 per square yard, for constructing brick roads.

Jacksonville, Ill.—The offer of E. M. Kean, the contractor, to increase the flow of the city's artesian wells 1,000,000 gallons daily for the sum of \$1,000, was accepted by the Board of Bond Trustees. His method of increasing the flow is his secret, but he declares it entirely practicable and guarantees that it will not injure any of the wells. In fact, Mr. Kean has clearly demonstrated to the committee that his plan will do what he claims for it. He says that in the future, should there be any falling off in the supply, it can be easily and cheaply restored by the city adopting his plan. In view of the fact that such a tremendous falling off in the flow of the wells was reported at the last meeting of the Board, there is little doubt that the Board has acted wisely in accepting Mr. Kean's offer, provided it proves successful.

Four bids were received for furnishing a 6-inch centrifugal pump and 15-h.p. motor for the sewage pumping station at the foot of Jefferson street, LaVilla, and the total amount of each for the pump complete, according to specifications, was as follows: Morris Machine Works, Baldwinsville, N. Y., \$549; Henry R. Worthington, through Jacksonville agent, \$780; Lawrence Machine Company, Lawrence, Mass., \$650; R. D. Wood & Co., Philadelphia, \$637. All bids were referred to the Sewer Committee with power to act.

For furnishing 2,000 feet of one kind of electric wire, 1,000 feet of another kind and some other supplies, the bidders were the Standard Underground Cable Company of Atlanta, the Safety Insulated Wire and Cable Company of Bayonne, N. J., and the Western Electric Company, of New York. These bids were all referred to the Electric Committee, with power to act.

Batavia, Ill.—The United States Wind Engine and Pump Company, city, has the contract, at \$10,823.09, for extensions to the city water mains.

Bloomington, Ill.—The Board of Local Improvements has let contract to the Capital City Construction Company, Springfield, Ill., for resurfacing the present brick pavement on East street, from Grove to Locust street, with sheet asphalt.—E. H. Packard, Clerk; C. F. Fauntz, City Engineer.

Decatur, Ill.—John Drohn has contract, at \$2,621, for constructing sewers in University place addition.—A. B. Alexander, City Engineer.

Pearl, Ill.—Mayor O'Connor has signed the contract by which the Manhattan Rubber and Manufacturing Company of Chicago has engaged to furnish to the city 3,500 feet of fire hose at a cost of 75 cents per foot. The contract calls for the delivery of the hose on or before thirty days, and the company is to deliver 3,500 feet of rubber lined cotton fire hose which shall conform to the six required specifications; the most important of these specifications are that the hose shall be of rubber with cotton cover, to be 2½ inches in diameter and shall be in lengths of 50 feet. The hose is guaranteed to stand a pressure of 250 pounds to the square inch and to stand for the full term of five years.

Streator, Ill.—The Special Bridge Committee in charge of the construction of the bridge over Otter Creek, in Otter Creek Township, has awarded the contract for the structure to the Decatur Bridge Company; the contract for furnishing the concrete abutments for the new structure was also awarded. There were only two bids for supplying the bridge, as follows: Joliet Steel and Iron Bridge Company, for superstructure, \$825; Decatur Bridge Company, for superstructure, \$789. The Decatur Bridge Company was awarded the contract.

For the building of concrete abutments, work and material included, there were several bids, Decatur Bridge Company, per yard, \$7.20; Allen & Uglend, Marseilles, per yard, \$9.75; Phillip Schiachter, Streator, per yard, \$6; Wm. Pugh, Streator, per yard, \$6. The last two bids, being exactly the same, the two contractors decided to flip a coin to decide who should receive the contract, and Wm. Pugh was the lucky man. The new structure will take the place of an old wooden bridge, 190 feet long, which rests on the bed of Otter Creek. The new bridge will be set on an angle of 35 degrees, thus allowing it to be raised several feet and avoiding being placed in the bed of the creek, similar to the old one.

Frankfort, Ind.—The Board of Commissioners of Clinton County let contract to Wm. J. Nees, at \$12,169, for constructing four roads, and to Kelleher, Stephen & Bolt for one road, at \$3,820.—C. F. Cromwell, County Auditor.

Ligonier, Ind.—Contract for constructing an electric light plant was let to the C. L. Olds Construction Company, Ft. Wayne, for \$25,941.20.—R. E. Jeanneret, City Clerk; A. J. Hammond, C. E., South Bend.

Muncie, Ind.—Contracts for nine big highway improvements in Delaware County were awarded; the biggest contract was for the paving with brick of Hoyt avenue in the city; Gough Bros., of Muncie, were the successful bidders for this improvement; work will soon be started on this improvement.

Newport, Ind.—George W. Sykes, contractor, Newport, Ind., has been awarded contract for constructing Ruddy road, \$3,600; Reynolds road, \$4,900, and Church road, \$3,600.—H. T. Payne, County Auditor.

North Manchester, Ind.—King Bros. have been awarded a contract for laying 5,950 feet of 6 to 15-inch tile at 99 cents per lineal foot; the total of bids received were: King Bros., \$5,841; Chicago Quarry Company, \$6,419.65; Wilson & Arthur, \$6,142; D. G. Dunn, \$7,518.40.

The Andrews Asphalt Paving Company has been awarded a contract for laying an asphalt pavement, 2½ inches thick, on a 5-inch concrete foundation, for \$2.03 per square yard.—A. G. Ebbinghouse, Town Clerk.

Peru, Ind.—Contracts for grading, draining, culverting and paving with gravel dry roads were let to Madlin Brothers, Marion; P. C. Steinman, R. F. D., Peru; Wales & Saxon, Converse, and Daniels & Daniels, Tipton.—Charles Griswold, Auditor, Miami County.

South Bend, Ind.—The Board of Public Works has awarded contracts to the following contractors for the construction of the various sewers and pavements: Fraire avenue, trunk sewer, Hoban & Roach; Miller court, pipe sewer, Charles Coussens & Co.; Diamond avenue, pipe sewer, Charles Coussens & Co.; Wayne street, pipe sewer, Hoban & Roach; Fisher street, pipe sewer, Charles Coussens & Co.; Baker street, grade, curb and walk, Tom McBauer; Carroll street, grade curb and walk, Tom McBauer; Division street, east, grading alley west of Lafayette street, paving alley west of Franklin street, paving, James Nelson, and Wood street brick paving, C. H. DeFrees.

Burlington, Ia.—Young & Buescher have the contract for one block brick paving.—Robert Kropach, City Clerk.

Cherokee, Ia.—The contract for 3,200 feet of 4 and 2-inch galvanized iron pipe for water works extension has been awarded to Swanson & Betsworth, City.—William Shadlow, City Clerk.

Dubuque, Ia.—The O'Farrell Construction Company, city, was awarded the contract for paving with brick portions of Sixth and White streets.—Edmund A. Linehan, City Recorder.

Fort Dodge, Ia.—Engle Brothers, city, were awarded the contract for the construction of combined concrete curb and gutter on both sides of First avenue South, from east line of Twelfth street to east line of Fifteenth street, about 2,485 lineal feet.—King E. Beal, City Clerk.

Muscatine, Ia.—James Selden, city, has been awarded contract for the construction of new jail and Sheriff's residence, to be brick and stone, and erected at Walnut and Fourth streets, at a cost of \$14,600.

Ottumwa, Ia.—J. C. Blunk has the contract for a brick sewer.—Charles Deeds, City Clerk; J. T. Brady, City Engineer.

Hed Oak, Ia.—Hamilton & Schwartz have been awarded a contract for paving 4,010 square yards of brick paving on a 6-inch concrete foundation at \$1.88 per square yard; J. W. Campbell was awarded contract for 3,209 yards at the same price. Other bids were: John Horribin, \$2.05; George H. Brenner, \$2.15; Evan J. Evans, \$2.09; M. Ford, \$2.08. The contract for 26,666 lineal feet standard combination curb and gutter was awarded to J. S. & D. M. McLaughlin at 51 cents. Other bids for curbing were: R. A. Elzey & Co., 59 cents; J. S. & D. M. McLaughlin, 51 cents; J. B. Frahm, 61.5 cents; John Horralin, 63 cents; Cork Construction Company, 62.7 cents; Dunn & Mead, 56 cents; M. Ford, 74 cents; Wilson Construction Company, 57 cents; J. W. Campbell, 71 cents; Carlson Construction Company, 57 cents; H. T. Thomas, Mayor.

Wapello, Ia.—The National Construction Company, South Bend, Ind., has been awarded the contract for the installation of a water works plant, at 10 per cent of cost, materials to be purchased by city. Cost about \$30,000.

Concordia, Kan.—The general contract for the extension and improvement of the water works system was awarded by Council to W. A. Rees, of Fayetteville, Ark., at \$5,027, with the privilege of cutting out of his bid the poles and electric wire mentioned therein and omitting the concrete valve boxes and furnishing cast-iron boxes in their place.

Contracts for hydrants and valves and for cast-iron pipe were awarded to the Ludlow Valve Company, of Troy, N. Y., and to the U. S. Pipe and Foundry Company, of Chicago, Ill.

Frankfort, Kan.—The George M. King Construction Company, of Des Moines, Ia., has secured the contract for constructing a sewerage system here at \$20,507.—Burns & McDonnell, Scarratt Building, Kansas City, Mo., Engineers.

Frankfort, Ky.—Bids were received by the State Board of Capitol Commission, Frankfort, for erection of power house for new State Capitol Building, and for installation of mechanical equipment; Frank M. Andrews & Co., Cincinnati, O., are architects, and contract was awarded to Joseph McWilliams & Co., of Louisville, at \$85,521.

Greendale, Ky.—Joseph McWilliams & Co., Louisville, have been awarded the contract for constructing a filtration plant and making other improvements to the Kentucky Schools of Reform at Greendale.—E. H. Doak, Superintendent.

Lexington, Ky.—Thomas Ahern & Company have been awarded contract for completing construction of southern main sewer at \$9,275, the city to be allowed a credit on contract for all rock excavation less than 1,800 cubic yards, at the rate of \$2.75 per cubic yard.—J. E. Cassidy, City Clerk.

Louisville, Ky.—Charles P. Weaver, secretary to the Commissioners of Sewerage, states that contracts for constructing Section A of the Twenty-fifth street sewer were let July 3 to Hines Brothers, an Ohio firm.

Paducah, Ky.—George W. Katterjohn has secured the contract for concrete sidewalks and gutters and granite curb on Tenth street, from Broadway to Kentucky avenue, and the Southern Bitulithic Company was awarded the contract for paving.—L. A. Washington, City Engineer.

New Orleans, La.—Bids were received, June 30, for electrical and pumping machinery to be installed in Sewerage Station "C," Algiers. The D'Olier Engineering Company, No. 121 South Eleventh street, Philadelphia, Pa., were the low bidders, and the contract has been awarded to them, with items 4 and 6 eliminated under option reserved in specifications; their bid follows: Item No. 1, two 100-kw. generators, \$4,350; No. 2, two 75-h.p. motors, \$3,375; No. 3, one 2,500,000-gallon turbine pump and motor, \$2,765; No. 4, one 1,000,000-gallon Triplex pump and motor,

\$3,340; No. 5, one 2,000,000-gallon and two 4,000,000-gallon centrifugal pumps and motors, \$2,900; No. 6, two 5-h.p. motors, \$540; No. 7, one surface condenser and air pump, \$2,020; No. 8, wiring of pumping station and head house, \$1,250; No. 9, exhaust, water and steam piping, and valves, \$5,344; total, \$25,884; less items 4 and 6, \$3,880; balance, \$22,004. The bids received follow, the totals being given first, and the balance, minus Items 4 and 6, second; A. M. Lockett & Co., \$29,788.36 and \$25,751.65; Muralt Co., \$29,996 and \$22,890; Allis-Chalmers Co., \$30,604 and \$25,905; Rantz & Biggar, \$32,451 and \$27,408; James McWilliams & Co., \$33,259 and \$28,712.—George G. Earl, General Superintendent.

Baltimore, Md.—Following are the quotations of bids for storm-water drains, Contract No. 4, sewage pumping station substructure and east low level interceptor, Sections 1, 2 and also Section 3, contracts for which were awarded by the Sewerage Commission, Calvin W. Hendrick, Chief Engineer, to Reilly & Riddle, of Lancaster, Pa., Noel Construction Co., Baltimore, Md., T. J. O'Connell, Boston, Mass., and Metropolitan Contracting Co., Boston, Mass., respectively; the totals follow:

For Contract No. 4: Reilly & Riddle, Lancaster, Pa. (awarded contract), \$135,949.16; Donovan & Phillips, Boston, Mass., \$136,778.14; Falvey & Kelly, Boston, Mass., \$137,293.25; David Peoples, city, \$148,127.45; M. O. Herron & Co., Pittsburgh, Pa., \$158,020.10; Metropolitan Contracting Company, Boston, Mass., \$171,442.51; M. A. Talbott Company, city, \$173,355.04; Robert C. Storrie, New Orleans, La., \$193,189.70.

For constructing substructure and foundations of pumping station, Contract No. 3, the totals were: Noel Construction Company, city (awarded contract), if only Contract No. 3 is awarded, (a) \$128,071.50, (b) if both contracts, Nos. 3 and No. 4, the latter the superstructure, are awarded, (b) \$313,654.90; Baltimore Ferro-Concrete Company, city, (a) \$131,910.15, (b) \$362,860.15; David Peoples, city, (b) \$332,788.80; the Gilbert Paving and Construction Company, city, (a) \$143,176.05; T. J. O'Connell, Boston, Mass., (a) \$168,435.50; the C. H. Fath & Son Contracting Company, Cleveland, O., (a) \$176,432.35, (b) \$364,470.35; Dennis Construction Company, Philadelphia, Pa., (a) \$183,433; the Metropolitan Contracting Company, Boston, Mass., (a) \$784,816.85; John Waters, city, (a) \$177,365.02, (b) \$380,192.81.

For constructing Section 1, east low level interceptor, Sanitary Contract No. 24: T. J. O'Connell, Boston, Mass. (awarded contract), \$111,356.25; M. O. Herron & Co., Inc., Pittsburgh, Pa., \$117,417.60; the Warren F. Brenizer Company, city, \$123,509.30; David Peoples, city, \$127,004.60; the M. A. Talbott Company, city, \$138,632.40; Metropolitan Contracting Company, Boston, Mass., \$148,089.60; Donovan & Phillips, Boston, Mass., \$150,523.55.

For constructing Section 2, east low level interceptor, Sanitary Contract No. 25: T. J. O'Connell (awarded contract), \$95,696; the Warren Brenizer Company, \$111,967.65; the M. A. Talbott Company, \$119,557.80; David Peoples, \$118,640.30; M. O. Herron & Co., Inc., \$127,038.50; Metropolitan Contracting Company, \$126,101; Donovan & Phillips, \$128,982.85.

For constructing Section 3, west low level interceptor, Contract No. 23: Metropolitan Contracting Company, Boston, Mass. (awarded contract), \$162,895.15; Donovan & Phillips, \$176,564.25; Warren E. Brenizer Company, city, \$242,360.10.

Details of the successful bids follow:

Contract No. 4, Reilly & Riddle: Earth excavation and refill, 66x84 inches, double line rectangular drain, 109 lineal feet, \$22.75; earth excavation and refill, 114-inch circular drain, 1,114 lineal feet, \$6.60; earth excavation and refill, 66-inch circular drain, 163 lineal feet, \$1.80; earth excavation and refill, 60-inch circular drain, 175 lineal feet, \$2.40; earth excavation and refill, 42-inch circular drain, 528 lineal feet, \$3.50; earth excavation and refill, 36-inch circular drain, 368 lineal feet, \$1.60; earth excavation and refill, 33-inch circular drain, 66 lineal feet, \$1.30; earth excavation and refill, 30-inch circular drain, 2,234 lineal feet, \$1.30; earth excavation and refill, 24-inch circular drain, 3,458 lineal feet, \$1.30; earth excavation and refill, 20-inch circular drain, 2,497 lineal feet, 87 cents; earth excavation and refill, 18-inch circular drain, 3,435 lineal feet, 83 cents; earth excavation and refill, 15-inch circular drain, 3,944 lineal feet, 73 cents; earth excavation and refill, 12-inch circular drain, 461 lineal feet, 57 cents; furnishing material and building 42-inch circular drain brick masonry, 528 lineal feet, \$6.65; furnishing material and building 42-inch circular drain, ordinary concrete, 528 lineal feet, \$5.48; furnishing material and building 42-inch circular drain, reinforced concrete pipe, 528 lineal feet, \$7; furnishing material and building 36-inch circular drain, brick masonry, 368 lineal feet, \$5.71; furnishing material and building 36-inch circular drain, ordinary concrete, 368 lineal feet, \$4.22; furnishing material and

building 33-inch circular drain, brick masonry, 66 lineal feet, \$5.23; furnishing material and building 33-inch circular drain, ordinary concrete, 66 lineal feet, \$3.42; furnishing material and building 30-inch circular drain, brick masonry, 2,234 lineal feet, \$4.80; furnishing material and building 30-inch circular drain, ordinary concrete, 2,234 lineal feet, \$3.09; furnishing and laying 24-inch vitrified pipe drain, 3,458 lineal feet, \$1.60; furnishing and laying 20-inch vitrified pipe drain, 2,497 lineal feet, \$1.25; furnishing and laying 18-inch vitrified pipe drain, 3,433 lineal feet, \$1; furnishing and laying 15-inch vitrified pipe drain, 3,944 lineal feet, 90 cents; furnishing and laying 12-inch vitrified pipe drain, 461 lineal feet, 65 cents; furnishing and laying 15-inch inlet connections, including excavation and refill, 2,532 lineal feet, \$1.83; furnishing and laying 12-inch inlet connections including excavation and refill, 516 lineal feet, \$1.90; ordinary brick masonry in Portland cement mortar, 205 cubic yards, \$15; vitrified brick masonry in Portland cement mortar, 10 cubic yards, \$25; ordinary concrete masonry, "Class A," 1,150 cubic yards, \$9; ordinary concrete masonry, "Class B," 2,450 cubic yards, \$9; ordinary concrete masonry, "Class C," 300 cubic yards, \$8; corrugated or twisted steel reinforcing bars, 4,000 pounds, 5 cents; dimension stone masonry in Portland cement mortar, 2 cubic yards, \$30; excavation, furnishing and laying 6-inch under drain, 1,200 lineal feet, 50 cents; excavating, furnishing and laying 8-inch under drain, 1,800 lineal feet, 60 cents; lumber, ordinary sheeting, bracing, shoring, etc., left in place, 140 M. B. M., \$16; sheet piling left in place, 5 M. B. M., \$25; lumber in permanent foundations, 25 M. B. M., \$40; piles, spruce or pine, driven and cut off, 100 lineal feet, 50 cents; rock excavation, volume more than $\frac{1}{2}$ cubic yard, 50 cubic yards, \$4.50; spreading and consolidating material of embankment, 3,900 cubic yards, 15 cents; material for embankment in addition to surplus earth from excavation, 1,250 cubic yards, \$2; slope paving on embankment, 50 square yards, \$2; 12-inch slants, built in, 5, \$1.25; 15-inch slants, built in, 5, \$1.85; 12-inch "Y" branches, in place, 5, \$1.75; earth excavation for bell mouths, including sheeting and shoring, 65 cubic yards, \$4; earth excavation, extra depth below sub-grade, 40 cubic yards, \$1.50; gravel refill below sub-grade, 25 cubic yards, \$2.25; manhole frame and cover, set complete, 105, \$11; ordinary brick manholes, complete, 690 lineal feet, \$4.75; drop manholes, complete, 58 lineal feet, \$8; drop wells, complete, including labor, material, etc., 94 lineal feet, \$10; earth excavation for drop wells, including sheeting and shoring, 250 cubic yards, \$6; registering manhole, including connection to main drain, 1, \$300; 8-inch galvanized wrought iron manhole steps, 380, 45 cents; inlets, "Class A," including excavation, 44, \$55; inlets, "Class B," including excavation, 47, \$45; inlets, "Class C," including excavation, 17, \$45; inlets, "Class D," including excavation, 8, \$45; inlets, "Class E," including excavation and grading complete, 3, \$45; flush inlet-heads for "Class A" inlets, 15, \$15; depressed inlet-heads for "Class A" inlets, 34, \$15; flush inlet-heads for "Class B" inlets, 19, \$15; depressed inlet-heads for "Class B" inlets, 28, \$15; flush inlet-heads for "Class C" inlets, 5, \$15; depressed inlet-heads for "Class C" inlets, 12, \$15; furnishing and setting granite curbs, complete, 200 lineal feet, \$2; removing and setting again, curbs other than new curbs, 200 lineal feet, 50 cents; vitrified lining for reinforced concrete pipe, complete, 220 square yards, \$1.50; removing and relaying all gutter and cobble pavement outside specification limits, 100 square yards, 50 cents; furnishing and setting 12-inch steel "I" beams, complete, 60,000 pounds, 5 cents; total estimated value of contract, \$127,949.16; value of time required to complete contract at \$40 per day, \$8,000; total for comparison, \$135,949.16; number of working days required for completion, 200 days.

Contract No. 3, Noel Construction Company: Excavation, "Class A," 17,400 cubic yards, \$1.15; excavation, "Class B," 7,000 cubic yards, \$1.80; concrete masonry, "Class A," 5,700 cubic yards, \$6.80; concrete masonry, "Class B," 4,900 cubic yards, \$5.50; stone masonry, 34 cubic yards, \$78; brick masonry, "Class A," 80 cubic yards, \$6.15; brick masonry, "Class B," 200 cubic yards, \$8; waterproofing, "Class A," 2,700 square yards, \$1.35; waterproofing, "Class B," 1,325 square yards, \$1.10; waterproofing, "Class C," 350 square yards, 35 cents; structural steel, 18,200 pounds, .035 cents; plain steel rods for reinforced concrete, 75,000 pounds, .019 cents; iron castings, 14,000 pounds, .025 cents; granolithic paving, 310 square yards, 80 cents; 30-inch diamond cast iron pipe, 124 lineal feet, \$12; 20-inch diamond cast iron pipe, 12 lineal feet, \$5.80; 6-inch standard weight cast iron soil pipe, 260 lineal feet, \$1.05; 4-inch standard weight cast iron soil pipe, 450 lineal feet, 65 cents; 4-inch extra heavy cast iron soil pipe, 90 lineal feet, .755 cents; 20-inch vitrified pipe, circulating water supply and discharge, 350 lineal feet, \$2.10; 6-inch vitrified pipe, 210 lineal feet, \$1;

20-inch vitrified pipe underdrain, 60 lineal feet, \$2.26; 15-inch vitrified pipe underdrain, 250 lineal feet, \$1.25; 12-inch vitrified pipe underdrain, 275 lineal feet, \$1.32; 10-inch vitrified pipe underdrain, 300 lineal feet, 95 cents; piles, 150 lineal feet, 45 cents; manholes, complete, including heads, steps, etc., 3, \$190; 14-inch wrought iron manhole steps, 52, 25 cents; 12-inch catchbasins, 18, \$3.30; 10-inch catchbasins, 5, \$2.55; 18-inch manhole frames and covers, 5, \$5.10; sheeting and timber left in place, 64 M. feet B. M., \$25; pipes, nuts and washers for foundation bolts, 48 sets, \$11.90; 30-inch sluice valves, 4, \$160; 18-inch sluice valves with stands, 2, \$98; iron ladder in drainage pump well, 1, \$10; industrial railway track, complete, 1, \$260; circulating water intake, complete, 1, \$1,800; cast iron circulating water discharge pipe, 1, \$65; total amount of bid, \$121,071.50; lump sum bid for superstructure (Contract No. 4); total of Contracts No. 3 and No. 4; value of time required to complete contract at \$35 per day, \$7,000; total for comparison, \$128,071.50; number working days required for completion, 200 days.

Section 1, east low level interceptor, Sanitary Contract No. 24, T. J. O'Connell: Excavation and refill for 60-inch diameter sewer, 1,530 lineal feet, \$15.50; excavation and refill for 57-inch diameter sewer, 740 lineal feet, \$13.50; excavation and refill for 55-inch diameter sewer, 980 lineal feet, \$75; excavation below sub-grade, 100 cubic yards, \$2.50; gravel refill below sub-grade, 100 cubic yards, \$2.25; rock excavation, 5 cubic yards, \$10; sewer brick masonry, 700 cubic yards, \$15; vitrified brick masonry, 10 cubic yards, \$23; "Class A" concrete masonry, 810 cubic yards, \$8.25; "Class B" concrete masonry, 1,150 cubic yards, \$7.75; corrugated or twisted steel bars, 100 pounds, 5 cents; dimension stone masonry, 2 cubic yards, \$35; 12-inch underdrain, 2,500 lineal feet, 75 cents; 10-inch underdrain, 1,000 lineal feet, 75 cents; 8-inch underdrain, 1,000 lineal feet, 75 cents; 8-inch bevel connections built in, 35, \$1; 8-inch bevel connections built in, 20, \$1; 10-inch bevel connections built in, 3, \$1; 12-inch bevel connections, built in, 2, \$1; 15-inch bevel connections built in, 1, \$1; 18-inch bevel connections built in, 1, \$1; shoring, sheeting and bracing left in place, 430 M. A. B. M., \$16; sheet piling left in place, 10 M. A. B. M., \$25; lumber in foundations, 50 M. A. B. M., \$35; waterproofing, 6,250 square yards, \$1.15; manhole frames and covers, 13, \$15; manhole steps, 147, 25 cents; wrought iron pile shoes, 10, \$5; piles, 500 lineal feet, 30 cents; cast iron bases for 6-inch standpipes, 100, \$4; cast iron bases for 8-inch standpipes, 2, \$5; 6-inch vitrified pipe house connections, 2,300 lineal feet, \$2; 8-inch vitrified pipe house connections, 50 lineal feet, \$2; 6-inch cast iron pipe house connections or standpipes, 400 lineal feet, \$3; 8-inch cast iron pipe house connections or standpipes, 10, \$3; total amount of bid, \$101,356.25; value of time required to complete contract at \$40 per day, \$10,000; total for comparison, \$111,356.25; number of working days required for completion, 250 days.

Section 2, east low level interceptor, Sanitary Contract No. 25, T. J. O'Connell: Excavation and refill for 52-inch diameter sewer, 888 lineal feet, \$13; excavation and refill for 48-inch diameter sewer, 870 lineal feet, \$11.25; excavation and refill for 45-inch diameter sewer, 1,419 lineal feet, \$11.25; excavation and refill for bellmouth at Boston and Hudson streets, \$200; excavation below sub-grade, 200 cubic yards, \$2.50; gravel refill below sub-grade, 200 cubic yards, \$2.25; rock excavation, 5 cubic yards, \$10; sewer brick masonry, 585 cubic yards, \$15; vitrified brick masonry, 10 cubic yards, \$23; "Class A" concrete masonry, 550 cubic yards, \$8; "Class B" concrete masonry, 810 cubic yards, \$7.75; corrugated or twisted steel bars, 100 pounds, 5 cents; dimension stone masonry, 1 cubic yard, \$40; 10-inch underdrain, 1,000 lineal feet, 60 cents; 8-inch underdrain, 2,300 lineal feet, 50 cents; 6-inch bevel connections built in, 75, \$1; 8-inch bevel connections built in, 15, \$1; 10-inch bevel connections built in, 3, \$1; 12-inch bevel connections built in, 3, \$1; 15-inch bevel connections built in, 1, \$1; 18-inch bevel connections built in, 1, \$1; shoring, sheeting and bracing left in place, 400 M. feet B. M., \$16; sheet piling left in place, 10 M. feet B. M., \$25; lumber in foundations, 50 M. feet B. M., \$35; waterproofing, 5,325 square yards, \$1.15; manhole frames and covers, 11, \$15; manhole steps, 126, 25 cents; wrought iron pile shoes, 10, \$5; piles, 500 lineal feet, 30 cents; cast iron bases for 6-inch standpipes, 150, \$4; cast iron bases for 8-inch standpipes, 5, \$5; 6-inch vitrified pipe house connections, 4,000 lineal feet, \$2; 8-inch vitrified pipe house connections, 50 lineal feet, \$2; 6-inch cast iron pipe house connections, 650 lineal feet, \$3; 8-inch cast iron pipe house connections, 10 lineal feet, \$3; total amount of bid, \$85,696; value of time required to complete contract at \$40 per day, \$10,000; total for comparison, \$95,696; number of working days required for completion, 250 days.

Section 3, east low level interceptor, Contract No. 23, Metropolitan Contracting Com-

pany: Lineal feet excavation and refill for 66-inch sewer, 1,868, \$18; lineal feet excavation and refill for 60-inch sewer, 1,355, \$39; lineal feet excavation and refill for 30-inch sewer, 75, \$9.75; excavation and refill for bellmouth at Light and Pratt streets, \$50; excavation and refill for bellmouth at Light and York streets, \$200; cubic yards excavation below sub-grade, 150, \$2.50; cubic yards gravel refill below sub-grade, 150, \$2.25; cubic yards rock excavation, 50, \$5; cubic yards sewer-brick masonry, 773, \$16; cubic yards vitrified brick masonry, 10, \$21; cubic yards Class "A" concrete masonry, 931, \$8.50; cubic yards Class "B" concrete masonry, 1,265, \$8; pounds corrugated or twisted steel bars, 500, 4 cents; cubic yards dimension-stone masonry, 2, \$35; lineal feet 12-inch underdrain, 1,900, \$1; lineal feet 10-inch underdrain, 1,300, \$1; lineal feet 8-inch underdrain, 200, 75 cents; 6-inch connections, 5, \$1; 8-inch connections, 10, \$1; 10-inch connections, 5, \$1; 12-inch connections, 1, \$1; 15-inch connections, 1, \$1.50; 18-inch connections, 1, \$2.50; M feet B. M. sheeting, shoring and bracing left in place, 500, \$16; M feet B. M. sheet piling left in place, 10, \$25; M feet B. M. lumber in foundation, 50, \$40; square yards waterproofing, 6,750, \$1.35; manhole frames and covers, 11, \$18; manhole steps, 178, 30 cents; wrought iron shoes for piles, 10, \$5; lineal feet piles, 500, 30 cents; cast iron bases for 6-inch standpipes, 85, \$4; cast iron bases for 8-inch standpipes, 2, \$5; lineal feet 6-inch vitrified pipe house connections, 2,100, \$8; lineal feet 8-inch vitrified pipe house connections, 50, \$4; lineal feet 6-inch cast iron pipe house connections and standpipe, 400, \$4; lineal feet 8-inch cast iron pipe house connections and standpipe, 10, \$4.50; 8-inch drop connections to manhole, not exceeding 25 feet drop, 2, \$21; 10-inch drop connections to manhole, not exceeding 25 feet drop, 1, \$25; 8-inch drop connections to manhole, not exceeding 12 feet drop, 2, \$15; total amount of bid, \$150,895.15; value of time required to complete contract at \$40 per day, \$12,000; per for comparison, \$162,895.15; number of working days required for completion, 300.

Augusta, Me.—Bids were opened at the Treasury Department, Washington, for the construction of the public building in Augusta, Me.; the bids were as follows: W. H. Fissell & Co., New York, \$144,383; Woodbury & Leighton Company of Boston, \$149,949; Horace Purinton Company, Waterville, Me., \$169,560; Reuel J. Noyes, Augusta, incomplete.

Waterville, Me.—The contract for constructing a section of the Hayden Brook sewer was awarded by the Sewer Committee to Drury, McCracken & Gillio, city, at \$7 per foot.

Boston, Mass.—Bids were opened by the Boston Transit Commission for building a part of the walls, roof and invert for the enlargement of the subway under the Boston City Hospital Relief Station in Haymarket Square; there were five bids, ranging in amounts from \$21,932 to \$17,050; the lowest bid was by Coleman Brothers, and the next in order was that of the Hugh Nawn Contracting Company, \$18,434.50; the binding checks of these two concerns were retained by the Commission for further consideration, the other three being released immediately.

Among the contracts filed in the City Clerk's office was one with Charles Berman of 184 Louden street, East Boston, for two years, at \$12,500 a year, to collect and remove ashes and dirt in East Boston. Berman until recently was an inspector in the Sanitary Division.

William J. Barry of Roxbury secured two contracts for macadam roadways, one on Corona street, between Bowdoin street and Geneva avenue, and the other on Bernard street, between Talbot avenue and the New York, New Haven and Hartford Railroad.

John E. Burns got a contract to repair Congress street, between Franklin and Milk streets.

Martin F. Gaddis received the contract for cleaning catchbasins in South Boston at \$1.49 a cubic yard; J. E. Ferguson of Dorchester, cleaning of catchbasins in East Boston at \$1.69; James F. Nayon of Charlestown, the cleaning of catchbasins in Charlestown at \$1.33 a cubic yard; Martin H. Lynch, the cleaning of catchbasins in Brighton and West Roxbury, at \$1.25 a cubic yard; James F. Murphy, the cleaning of catchbasins in Dorchester at \$1.25 a cubic yard.

The Isaac Coffin Company received the contract for heating and ventilating the bath house on North Bennet street at \$6,300.

The Staples Coal Company received the contract to supply the City Hospital with 1,000 tons of Pocahontas at \$3.37 a ton, and the Darrow, Mann Company the contract to supply 1,000 tons of buckwheat coal to the same institution at \$2 a ton.

Bids were opened by the Commissioner of Streets for repaving Summer street, between the A street bridge and the New York, New Haven and Hartford Railroad bridge; the lowest bid was submitted by James P. Collins.

Springfield, Mass.—The contract for the new 6-inch water main was awarded to the Hitchcock Supply Company by the Board of Water Commissioners.

Detroit, Mich.—Council has awarded paving contracts as follows: Ferd. Porath & Son, 878 Twenty-fifth street, Atwater street, cedar, on concrete, \$2,926.71; Bellevue avenue, same, \$13,312.38; Bewick avenue, same, \$6,190.96, and Bagg street, brick, on concrete, \$2,962.73; also to J. A. Mercier, 210 Hammond Building, Livernois avenue, cedar on concrete, \$9,900.72.

Council has awarded contract to William Porath, Michigan avenue and Pere Marquette Railroad, for a public sewer on Twenty-eighth street.

Flint, Mich.—Contract for constructing 2,300 feet of 30-inch concrete sewer was let to A. P. Southworth, Adrian, and Thomas Bergin, Flint, secured the contract for 1,138 feet of 10-inch, 782 feet of 15-inch and 580 feet of 8-inch vitrified crock sewer.

A contract for the construction of approximately 6,000 feet of combined curb and gutter was let to W. W. Hatch & Sons Company, Detroit.—D. E. Newcombe, City Clerk.

Ironwood, Mich.—Council has let contract to F. McDonnell, Duluth, Minn., for tar macadam paving at \$15,000, and William Killbride has the contract for about 2,500 feet of cement sidewalk.—W. D. Snyder, City Clerk.

Bonville, Mo.—The proposed sewer in sewer district No. 23 will be built by private contract, and E. N. Woods has charge of the matter.—Charles G. Miller, City Clerk.

Macon, Mo.—Contract for paving and curbing Ruby street was let to Henry Rees, 1414 Spring street, Quincy, Ill.—J. M. Sauvignet, Mayor; Fred. Boedeker, City Clerk.

Trenton, Mo.—The Trenton Manufacturing and Construction Company has the contract for six blocks of brick paving at \$1.90 per square yard.—W. S. Ryneorson, City Clerk.

David City, Neb.—Contract for constructing a sewer system was let to W. M. Lana, Harlan, Ia., for \$9,436.80.—W. S. McCoy, City Clerk; M. A. Earl & Co., Engineers, 1410 First National Bank Building, Chicago.

Omaha, Neb.—Bids were opened by Council for the construction of the Izard and Jones street sewers as follows: Izard street: Cooney Construction Company, St. Louis, brick, \$154,361; Katz-Craig Construction Company, Omaha, brick, \$117,102; People's Construction Company, Davenport, Ia., concrete, \$110,602; James Jensen, Omaha, brick, \$104,652; J. J. Hanighen, Omaha, brick, \$96,963 (awarded contract). Jones street: P. L. Kenney & Co., Omaha, \$34,178 (awarded contract); H. J. Peterson, Omaha, \$44,417; J. J. Hanighen, Omaha, \$44,989; James Jensen, Omaha, \$48,211; McKay & Cathroe, Omaha, \$50,792; the bids are all for brick construction.—Andrew Rosewater, City Engineer.

Cresskill, N. J.—C. Campanini has been awarded the contract by the County Commissioners, Hackensack, for constructing the stone bridge at \$3,695.

Overbrook, N. J.—Bids were opened by the Building Committee of the Board of Chosen Freeholders, Newark, N. J., for constructing a water supply and sewerage system at the County Hospital, Overbrook, consisting of two electric pumps and one compressor, one concrete reservoir, 60 feet in diameter, and 30 feet high, 3,230 feet of 12-inch and 7,200 feet of 6-inch cast iron pipe, with specials and hydrants, concrete intercepting basin, 500 feet of 10-inch and 5,550 feet of 8-inch vitrified sewer pipe, with basins and connections. The contract was awarded to the Harrison Construction Company of Newark, at \$49,609.

Paterson, N. J.—The Board of Public Works opened bids for the cleaning of the permanently improved streets and the cleaning of sewers, drains, etc., by contract, and the bids were as follows:

For cleaning permanently improved streets: Daniel McCourt, \$12,500; Frank Puglia and Cervino Brothers, \$15,850.50; James E. Burns, \$12,000.

For cleaning sewers, drains, etc.: James E. Burns, \$9,900; Daniel McCourt, \$8,000; Frank Puglia and Cervino Brothers, \$10,99.90; Joseph Puglia, \$9,715; Thomas McLean, \$6,869; Michael Brett, \$5,998.90.

Plainfield, N. J.—Four bids were received by Council for macadamizing certain streets, they being North avenue (a), Leland avenue (b), Netherwood avenue (c), Monroe avenue (d), West Eighth street (e), West Third street (f), and Clinton avenue (g), and those who submitted bids were Warren B. Travell, Smalley & Kitchen, J. A. Burke and C. M. Meeker. Upon the recommendation of the Street Committee, through a resolution offered by Mr. Gloak, the contract for macadamizing Clinton avenue was awarded to Warren B. Travell at his bid of 78 cents, being the most advantageous, and the contract for the remaining streets was awarded to Smalley & Kitchen. The bids were submitted on the basis of lineal feet. The four bids presented, the prices being on the streets in order as given above are as follows: Warren B. Travell, (a) 79 cents, (b) 78 cents, (c) 77 cents, (d) 84 cents, (e) 83 cents, (f) 74 cents, (g) 78 cents; Smalley & Kitchen, (a) 78 cents, (b) 69 cents, (c) 67 cents, (d) 68 cents, (e) 76 cents, (f) 68 cents, (g) 80 cents; J. A. Burke, (a) 96 cents, (b) 90 cents, (c) 91 cents, (d) 85 cents, (e) 90 cents, (f) 83 cents, (g) 87 cents; C. M. Meeker, (a) 84 cents, (b) 78 cents, (c) 70 cents, (d) 66 cents, (e) \$1.04, (f) 66 cents, (g) 70 cents.

Plainfield, N. J.—The contract for constructing a macadam road between Plainfield and Fanwood has been awarded to the Weston Contracting Company, of Rahway, N. J., at \$7,201.

Salem, N. J.—Bids were opened by the Board of Chosen Freeholders at the office of Josiah Miller, Engineer, Salem, for the construction of the Alloway and Aldine road, a distance of 4.76 miles. The contract was awarded to Tuft & Lloyd, of Salem, at \$19,200.

Albany, N. Y.—The Board of Contract and Supply awarded contracts: The improving of Rensselaer street, from Broadway to South Pearl streets, to Mulberry Brothers, at a price of \$18,801.50, installing a sewer in Delaware avenue, from Second avenue south, to John Doyle, at \$911.75; paving Ontario street, from Central to Western avenue, to John H. Malcolm, \$6,189.80.

The Board of Contract and Supply awarded contract for installing new electric lighting system in Washington Park to the B. and C. Electrical Construction Company, Utica, at \$3,576.30.

Brunswick, N. Y.—Council has awarded to the Specialty Construction Company, of Norfolk, Va., a contract for the construction of a new water works plant, to cost \$11,448; the contract includes the laying of mains, erection of fire plugs and tank and all material and labor; seven firms submitted bids for the plant; the work will begin shortly and will be completed in about 60 days.

Buffalo, N. Y.—Council has authorized the Commissioner of Public Works to enter into a contract with the Buffalo Fertilizer Company for the collection and disposal of garbage at their price of \$196,700 a year, for a period beginning August 1, 1908, and ending June 30, 1913. The modified contract, as adopted, allows the city a credit of \$1 a ton for as much garbage as is disposed of in municipal districts that may be built. It is possible that 25,000 tons may be so disposed of.

Brooklyn, N. Y.—The following bids were received by the Department of Education for the installation of electric light wiring, fixtures and fire signal systems in Public School No. 43, Brooklyn: Reis & O'Donovan, 1123 Broadway, \$6,839; E. J. Duggan, 1133 Broadway, \$7,223; Griffin & Co., 150 Nassau street, \$7,486; Commercial Construction Company, 114 East Twenty-eighth street, \$7,788; T. Frederick Jackson, 592 Columbus avenue, \$7,300.

New York, N. Y.—Bids were received by James W. Stevenson, Commissioner of Bridges, for the electrical equipment and the laying of sewers, water pipes and tracks and the grading and paving of the Plaza, in the Borough of Queens, of the Blackwells Island bridge over the East River, between the Boroughs of Manhattan and Queens: Hanover Construction Company, 129 West One Hundred and Twenty-fifth street, New York, \$215,940; McHarg, Bart & Co., 299 Broadway, New York, \$218,780; Snare & Triest Company, 143 Liberty street, New York, \$223,780; Cooper & Evans Company, 220 Broadway, New York, \$209,135; Charles Meads & Co., 299 Broadway, New York, \$182,200; Northeastern Construction Company, 225 Fifth avenue, New York, \$194,344; James L. Carey, Brooklyn, N. Y., \$236,381; Gore Engineering and Contracting Company, 206 Broadway, New York, \$202,866; Long Island Contracting and Supply Company, New York, \$203,029; Thomas Crimmins Contracting Company, 444 East Sixty-ninth street, New York, \$227,368; Astoria Paving Company, \$251,052; Iron Slag Block Paving Company, \$230,510; William G. Root, \$223,896.

The lowest bid opened on July 8 by the Board of Water Supply, Gas and Electricity for furnishing, delivering and laying water mains in First avenue, from One Hundred and Tenth to One Hundred and Twenty-fifth streets, and in One Hundred and Twenty-fifth street, between First and Third avenues, was submitted by L. D. Gregory, One Hundred and Twenty-fifth streets and First avenue, at \$58,387, including pipe, gates, hydrants, etc. Other bidders were: C. Beckwith, Herkimer, N. Y., \$59,643; J. Cornwell, 69 East One Hundred and Twenty-seventh street, \$64,830; P. Goodman, East One Hundred and Thirty-third street, \$68,710; Wilton Construction Company, 115 Elliott avenue, \$71,038; Atlanta Construction Company, 432 East Ninety-first street, \$64,642; M. Schumacher, 400 East One Hundred and Eighth street, \$68,069; Hanover Construction Company, 129 West One Hundred and Twenty-fifth street, \$62,085; James Rodgers, 1929 Amsterdam avenue, \$61,162; Joseph Burns, 103 East One Hundred and Twenty-fifth street, \$66,851.

NEWS OF THE SOCIETIES

Playground Association of America.—The purpose of the Congress to be held in New York City September 8-11, which is also the annual convention of the association, is to bring together the Mayors, park, school and health officers of the cities of the United States and the leading educators and play experts, with the idea of stimulating every city in the country to make adequate playground provisions for its population. In addition a program by prominent specialists in educational and social work, there will be addresses by men prominent in public life, headed by Gov. Hughes. Mayor McClellan is honorary president of the congress, and President Roosevelt is honorary president of the association. Dr. Luther Halsey Gulick, president of the association, and his associates are preparing an extensive exhibit by school children which will exemplify the work of the New York playground system. Headquarters for the congress have been opened at 624 Madison avenue, New York.

International Congress of Tuberculosis.—An enormous quantity of medical exhibits for the congress to be held in Washington, D. C., from September 31 to October 12, is headed for Washington. Unless a storage place is found for them quickly the officials of the congress now in Washington will be at a loss. Exhibits from Switzerland, Sweden, France and one or two other European countries have arrived, and will probably be stored in the Custom House in Georgetown. The size, character and perishable nature of some of the exhibits makes this storage problem serious. In all other respects the congress is making good progress. The offices in the Colorado building have taken on an aspect of great activity, and enormous quantities of mail are received and sent out every day. Dr. John S. Fulton, Secretary General, is in communication with every civilized country. Col. Charles S. Bromwell, Superintendent of the office of Public Buildings and Grounds, has given his consent to the erection on the lawn near the National Museum of several portable cottages. These will be a part of the exhibit, showing methods of outdoor treatment, hygienic surroundings, etc. Samples of official medals to be worn by the several thousand members of the congress have been received at the offices of the congress. The medals are of bronze, designed by Victor Brenner, who also designed the now famous Paul Jones medal and the Whistler medal. The tuberculosis medal is remarkably simple in its lines, but beautiful. It bears an allegorical figure, representing Hygeia trampling under foot the serpent Tuberculosis.

Cement Products Exhibition.—The managers invite intending exhibitors to make preparations now to exhibit or be present at the second annual cement show, which will be held in Chicago during the winter in the Coliseum, the scene of the recent Republican national convention. The first annual cement show last December was universally conceded an unprecedented success. It is expected that the coming show will exceed it. The Coliseum is available on the following dates: December 16-23, January 4-10, February 14-20, March 2-8. Those who have a preference are invited to communicate their choice to the Cement Products Exhibition Company, 1128 Commercial Bank Building, Chicago.

The Vermont State Firemen's Association.—At the annual meeting, Middlebury, Vt., during the parade there were fully 1,000 men in line, representing several cities and towns in Vermont. In the hose contests the Ford Edward hose company of Fort Edward captured first prize. At the election of officers W. H. Lowne of Morrisville was chosen president, and E. D. Moore of Bennington secretary.

The National Electrical Contractors' Association.—At the meeting in Chicago, Ill., July 17, the following officers were elected: President, G. M. Sanborn, Indianapolis; Vice Presidents, M. L. Barnes, Troy, N. Y., and C. M. Kreider, Chicago; Treasurer, H. S. Potter, Boston; Secretary, John R. Galloway, Washington. The next meeting will be held at Toledo July 21, 1909.

Calendar of Meetings

July 28-30. **Association of Texas Mayors.**—Annual meeting, Mineral Wells.—John H. Bonner, President, Tyler.

August 10-12. **International Acetylene Association.**—Eleventh Annual Meeting, Chicago, Ill.—A. Cressy Morrison, Secretary.

August 11-14. **American Association of Park Superintendents.**—Annual meeting, Minneapolis, Minn.—F. L. Mulford, Secretary, Harrisburg, Pa.

August 25-27. **Ohio Electric Light Association.**—Fourteenth annual convention, Put-in-Bay Island, O.

August 25-27. **League of Cities of the Third Class of Pennsylvania.**—Annual convention, Altoona, Pa.—Thomas H. Grevy, Chairman Committee on Entertainment, Altoona.

August 25-28. **International Association of Fire Engineers.**—Annual convention, Columbus, O.—James McFall, Secretary, Roanoke, Va.

September 8-12. **Playground Association of America.**—Second annual congress, New York City.—Dr. Luther Halsey Gulick, President, 624 Madison avenue, New York City.

September 21-October 12. **National Association for the Study and Prevention of Tuberculosis.**—International Congress, Washington, D. C.—Dr. Henry Barton Jacobs, Secretary, Baltimore, Md.—Dr. Joseph Walsh, Philadelphia, Pa. Special Secretary of the Committee on the International Congress.

September 23-25. **New England Water Works Association.**—Annual convention, Atlantic City, N. J.—Willard Kent, Secretary, Narragansett Pier, R. I.

September 30-October 2. **League of American Municipalities.**—Twelfth annual convention, Omaha, Neb.—John MacVicar, Secretary, Des Moines, Ia.

September 29-30. **American Public Works Association.**—Annual meeting, Asheville, N. C.

September. **New Jersey State Firemen's Association.**—Annual meeting, Atlantic City, N. J.—William Exall, Secretary, 11 Howard street, Newark, N. J.

October 11. **International Roads Congress.**—First convention, Paris, France.—President Leither, l'Inspecteur General des Ponts et Chaussees.

October 12-17. **American Street and Interurban Railway Association.**—Twenty-seventh annual meeting, Atlantic City, N. J.

October 20-23. **American Society of Municipal Improvements.**—Fifteenth annual convention, Hotel Dennis, Atlantic City, N. J.—A. Prescott Folwell, Secretary, 239 West Thirty-ninth street, New York City.

November 17-20. **National Municipal League.**—Annual meeting, Pittsburgh, Pa.—Clinton Rogers Woodruff, Secretary, 705 North American Building, Philadelphia, Pa.

November 17-20. **American Civic Association.**—Annual Meeting, Pittsburgh, Pa.—Clinton Rogers Woodruff, Secretary, 705 North American Building, Philadelphia, Pa.

December 4-5. **New Jersey State Sanitary Association.**—Annual Meeting, Lakewood, N. J.—John B. Smith, Chairman, New Brunswick, N. J.

PERSONAL

ALLEN, KENNETH. Baltimore, Md., engineer of the low level division of the Baltimore, Md., sewerage improvements, has resigned to accept the position of Chief Engineer of the Metropolitan Sewerage Commission, New York City.

ASHBURNER, CHARLES B. Staunton, Va., General Manager of the City of Staunton, Va., was formerly engaged in engineering work in charge of improvements made near the city of Richmond, Va., by the late Major Lewis Ginter and was not City Engineer as stated in our issue of July 22.

DARNELL, J. L. Kansas City, Mo., has been appointed City Engineer of Kansas City, Mo., to succeed Mr. E. A. Harper, M. Am. Soc. C. E., resigned.

MARSHALL, WILLIAM L. Col. of Engineers U. S. Army of New York, N. Y., has been appointed Chief Engineer of the Corps, succeeding Brigadier-General Alexander MacKenzie, retired. Colonel Marshall has been in charge of the river and harbor works in the New York district.

MILLER, MAYOR A. L. Macon, Ga., has been enjoying a short vacation at Atlantic Beach, Fla. Alderman Brunner is acting mayor pro tem.

OVERBY, ODIN. Grand Forks, N. D., has been appointed by Mayor J. D. Taylor Chief of Police to succeed J. W. Lowe.

SMOOT, L. D. Washington, D. C., Assistant Engineer in the Engineer Department of the District, has been promoted to Assistant Engineer at \$1,800 per annum, vice Baily, transferred. Other changes made are: O. B. Magruder, Assistant Engineer at \$1,500 per annum, promoted to Assistant Engineer at \$1,500 per annum, vice Smoot. G. V. Rector, Assistant Engineer at \$1,350 per annum, promoted to Assistant Engineer at \$1,500 per annum, vice Magruder. S. J. Gass, Assistant Engineer at \$4.50 per diem, transferred to Assistant Engineer at \$1,350 per annum, vice Rector. T. J. Walters, foreman at \$1,200 per annum, to overseer at \$3.00 per diem, and J. T. Laggan, transferred from overseer at \$4 per diem to foreman at \$1,200 per annum, vice Walters.

SNEDEKER, CHARLES D. Perth Amboy, N. J., has been appointed a member of the Board of Health to succeed William N. Kant.

SNOOK, JOHN M. Port Jervis, N. Y., Commissioner of Charities, died July 11. Mr. Snook was a painstaking official who performed the duties of his office to the best interests of the city.

WARD, MAYOR GEORGE B. Birmingham, Ala., who is a bachelor, recently received a request to act as judge in the Avondale Park Baby Show. He replied that, while, as a "city father" he had devoted much thought to matters affecting the general welfare, he knew little or nothing about the particular department he was requested to pass on. He recommended City Engineer Julian Kendrick as a man well qualified for the place.

WHITE, GEORGE C. Mayor of Glen Ridge, N. J., is the owner of a dog that does not appreciate the efforts of the police to protect citizens from burglars. Policeman Delvane was walking about the yard, on the outlook for burglars, when the dog, which was in the house, raised such a disturbance that the Mayor thought burglars surely must be about. Delvane made a hasty retreat, and now feels discouraged about leaving his beat to look for burglars.

WINN, MAYOR MATT. Midway, Ky., and Councilman W. B. Cogar have returned from an inspection tour through Indiana and Illinois towns which are lighted by acetylene, with a view ascertaining the feasibility of such a system for their city.

TRADE NOTES

Cast-iron Pipe.—Chicago: Small buyers are showing more interest in the market. Gas pipe in sizes from 4 to 10-inch is in fairly good demand. Birmingham: Quotations have been advanced by two producers and quotations for small lots are maintained. Quotations: 4 to 6-inch, \$23; 8 to 12-inch, \$22; over 12-inch, average \$21. New York: Quotations, 6-inch pipe at tidewater, \$23.50 to \$24 per ton.

Lead.—Prices are stronger and the speculative lots which have been pressing on the market for several weeks are not going out quite as freely. Lead in New York is quoted at 4.47½c., but in St. Louis there has been an advance of 5 points, and the market there is firm at 4.32½c.

Water Softening.—Contracts for the largest water softening plant of the intermittent design ever constructed in the world have been awarded to the William B. Scaife & Sons Company, of Pittsburgh, Pa., by the Tennessee Coal, Iron and Railroad Company, of Pittsburgh, Pa., which was purchased some months ago by the United States Steel Corporation. The engine required to operate this enormous plant will have a capacity of 35,000 horsepower and the plant will have a capacity of 3,400,000 gallons of water a day. The mammoth engine will be built at the plant at Tarentum, Pa., and it will require about four months to complete it. It is the largest engine of its kind ever attempted in this country and plans for the plant have caused no little comment among engine and machine builders. The water softening plant will be located at Ensley, Ala., and will be used to purify all water used in the boilers of the steel corporation's mills in that section. The William B. Scaife & Sons Company has also received other orders during the past few months and the company's plants are operating almost to capacity.

Surveying Instruments.—The Iszard-Warren Co., Inc., 1122 Vine street, Philadelphia, Pa., published a manual of adjustments, vest pocket size, for the use of engineers in the field. Although the company publishes a complete catalogue of Engineering and Precision Instruments which they will send free to those interested, they believe that the present booklet will supply a real want. The Iszard-Warren Co. are manufacturers of fine hand-made instruments which they claim equal in accuracy those of any maker in the world.

Bridge Steel.—The Carbon Steel Company, of Pittsburgh, Pa., has shipped to New York City the first lot of steel required for the construction of the Manhattan bridge across the East river. The contract, which was for 45,000 tons of steel and cables, was the largest ever given by the city of New York. The entire contract for the steel went to the Carbon Steel Company and was made in the mills in Lawrenceville, while the work of construction was done by the Glandon Construction Company, of New York, a subsidiary of the Carbon Steel Company. Some idea of the magnitude of the contract may be obtained from the fact that 1,200 cars were required to transport the steel from the mills in this city to New York. The metal used is the best and most costly in steel construction and every bit of finished material was submitted to special tests for durability and tensile strength before being shipped.

PATENT CLAIMS

892,610. Method and Means for Straightening, Deepening and Controlling Streams. David Neale, Fort Calhoun, Neb. Serial No. 351,665.

The method of forming new banks to change the curvature of the bends of streams, consisting of, damming at one or more separated points that part of the stream below a plane just above low-water-mark, but far below high-water-mark and from the old bank out to the proposed new line of curvature, whereby the fall of high water over the dams and the laterals swirls from the points of the dams toward the old bank neutralizing each other to form dead water, thereby facilitating accretions to fill the spaces between said dams and downstream from the lower dam and high water spreads out above and deposits accretions over the whole.

892,630. Concrete Mixer and Conveyer. John B. Thies, Dayton, Ohio. Serial No. 423,293.

In a machine of the type specified, two annular side plates, a series of curved buckets secured between said side plates, the inner end of each of said buckets being located from the axis of the machine a distance of about one-third of the entire distance from the axis to the periphery of the machine, baffle plates on the inner end of each of said buckets, a handle pivoted to the axis of the machine and providing means for propelling the machine as well as means for supporting the machine in a position for the concrete to be delivered therefrom.

892,992. Road-Scraper. Friedrich Heyer, Hubbard, Tex. Serial No. 396,333.

The combination of a scraper, a draft member pivotally connected to the scraper, a frame pivotally connected to the scraper, means for locking the scraper in normal position, and a tooth projecting upwardly from the rear edge of the scraper for the purpose specified.

893,049. Ventilating Tunnels. Harry Blackman, New York, N. Y. Serial No. 348,744.

A tunnel having an opening through an overhead roadway and a ventilating opening for the escape of air through the wall of the tunnel and communicating with said opening through the roadway, the opening through the roadway being larger than that through the tunnel wall, so that the velocity of the escaping air is lessened.

893,168. Cement-Spreading Machine. Isaac Hewitt, Victoria, British Columbia, Can. Renewed March 13, 1908. Serial No. 420,881.

In a cement-spreading machine, a drag beam loosely suspended from a wheeled frame and means for laterally reciprocating said drag beam.

893,229. Incinerator for Garbage Excrement, etc. Emile F. Esperandieu, Buffalo, N. Y., assignor to the International Incinerator Company, Buffalo, N. Y. Serial No. 385,241.

A garbage or excrement incinerator comprising a portable metallic casing; a grate dividing the casing into a fire-box in its upper portion, and an ash-pit in its lower portion; a metallic receptacle situated in the upper portion of the fire-box and spaced from the top of the casing, said incinerator being formed with a passage, forming a communication between the space above said receptacle and the ash-pit; a smoke-pipe communicating directly with the fire-box; a passage communicating with the smoke-pipe and with the space above the receptacle for disposing of the back-draft, and provided with an opening for admitting air, a damper or valve in said passage for simultaneously closing the passage from the smoke-pipe and placing the space above the receptacle in graduated communication with the outside atmosphere through the opening in the passage, all combined and operating as and for the purpose stated.

CIVIL SERVICE EXAMINATIONS

Chief Engineer.—The United States Civil Service Commission announces an examination August 3 to fill a vacancy in the position of chief engineer, class 3, at \$115 per month in the Coast and Geodetic Survey, for service in the Philippines. The appointee will on his arrival at Manila be promoted to the position of Chief Engineer at \$140 a month. Application Form 304.

Engineer in Wood Preservation.—The United States Civil Service Commission announces an examination, September 2, to fill about eight vacancies in the Forest Service, Department of Agriculture, at an entrance salary of \$1,000 per annum. Application Form 1,312.

Inspector of Mechanical and Electrical Engineering.—The United States Civil Service Commission announces an examination, September 2-3, to fill a vacancy in the position of mechanical and electrical engineering, at \$2,190 per annum, in the office of the Supervising Architect, Treasury Department. Application Form 1,312.

PROPOSALS

INDIAN RUN SEWER

Notice to Contractors

Springfield, Ohio.

Sealed bids will be received by the Board of Public Service of the City of Springfield, Ohio, until 12 o'clock noon of Friday, August 7, 1908, at the office of the clerk of said Board, Room 5, City Building, for furnishing the necessary labor and material for the construction of Indian Run Intercepting Sewer, according to the plans and specifications now on file in the Department of Public Service.

Each bid must contain the full name of every person or company interested therein and be accompanied by a bond in the sum of \$2,000 with sureties to the approval of the Board of a certified check upon some solvent bank in like amount as a guarantee that if the bid is accepted a contract will be entered and its performance properly secured.

Bidders will be required to use the blank forms of proposal which will be furnished upon application to the office of the City Engineer.

The right is reserved to reject any and all bids.

The envelope or wrapper containing said bid must be endorsed "Bid for the construction of Indian Run Sewer."

By order of the Board of Public Service.
WM. H. MAHONEY.
(5-6) Clerk.

STREET IMPROVEMENTS

White Plains, N. Y.

Sealed proposals, addressed to the Village Clerk, will be received by the Board of Trustees of the Village of White Plains, New York, until 8 p.m. of the 17th day of August, 1908, for paving improvements, approximate quantities of which here follow:

7,000 square yards of brick pavement,
8,000 square yards of macadam pavement,
4,000 lineal feet of vitrified tile drains
and appurtenances.

18,000 lineal feet of blue stone curbing,
18,000 lineal feet of blue stone sidewalk,
23,000 lineal feet of brick gutter.

Plans and profiles may be examined, and upon the payment of one dollar (\$1) for each set, which deposit will be returned when proposals are received by the Board of Trustees, specifications and form of agreement may be secured at the office of James F. Goerke, Village Engineer, Room 714 Realty Building, White Plains, N. Y.

Bids must be made in strict accordance with the instructions to bidders attached to the specifications.

By order of the Board of Trustees.
Dated White Plains, New York, July 20, 1908.
CHRISTOPHER HARMON,
President Pro Tem. and
PETER PAULDING, Acting President.
Village Clerk.

(5-6-7)

GARBAGE CONTRACT

Youngstown, Ohio.
The Board of Health of the City of Youngstown, Ohio, will receive until 12 o'clock noon, August 29, 1908, sealed bids for the collection and removal of garbage in said city for a period of five years. For full details, address Dr. H. E. Welch, Health Officer. The right to reject any or all bids reserved.

(5-6-7-8-9)

VITRIFIED BLOCK PAVING

Jeffersonville, Ind.
Sealed bids will be received by the Board of Public Works until 10 o'clock a.m. August 6, 1908, for the construction of two blocks of vitrified block roadway and granatoid sidewalks, according to the plans and specifications now on file in the office of the City Civil Engineer.

Amount to be constructed:
Roadway, 5,536 square yards; curbstone, 1,362 lin. feet; granatoid sidewalk, 10,058 square feet; binder stone, 309 lin. feet; curbstone, 641 lin. feet; and 3 catch basins.

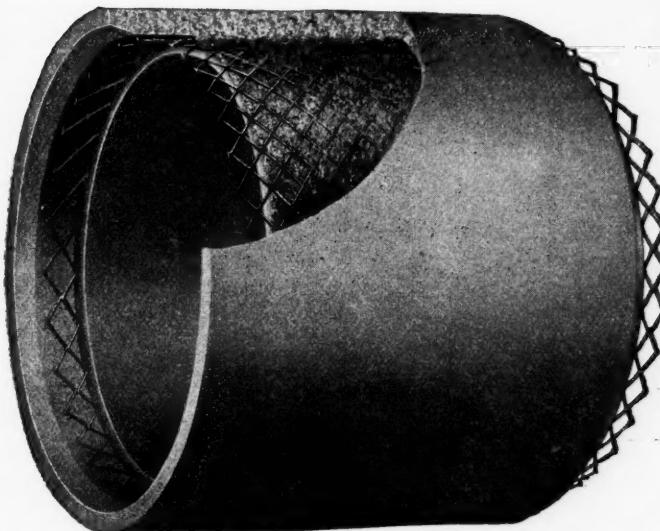
BOARD OF PUBLIC WORKS,
City of Jeffersonville, Ind.
VICTOR W. LYON,
City Engineer.

(5)

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Continuous Concrete Pipe

(Reinforced)



Sewers. Culverts. Conduits.

The only concrete pipe having continuous and uniform reinforcement throughout entire line of pipe when it is laid in the trench.

Joints locked and sealed from interior of pipe, giving continuous invert and absolutely tight joints.

The only pipe made which can be sealed and locked after placing backfill, thereby insuring tight joints.

The only pipe having uniform section of metal and concrete after laying.

SIZES

24 inches to 72 inches

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Position while loading

is simple, quick acting and durable. It loads, and dumps automatically. Cleans more rapidly than any other scraper and saves

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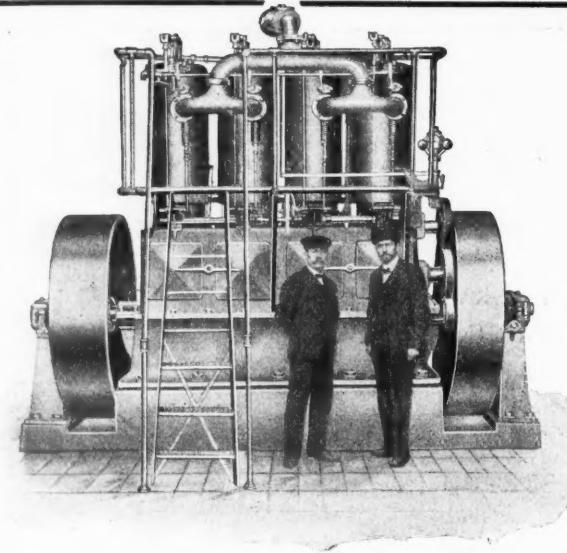
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90 West Street, New York

WHEN YOU WANT INFORMATION

about Municipal Matters write us. If it is statistics, or past history, it is apt to be in print and we can supply it. If it is current it will appear in

MUNICIPAL JOURNAL
AND ENGINEER

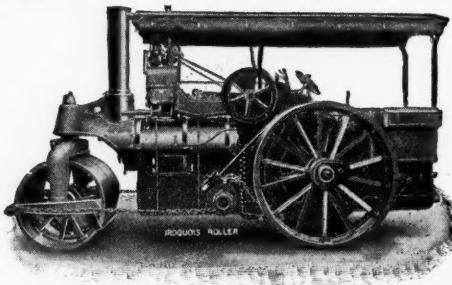


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